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Counseling Trainees' Attitudes toward and Interest in Working with Older Adult Clients

by

MaryAnn C. Sutton

Presented to the Graduate and Research Committee

of Lehigh University

in Candidacy for the Degree of

Doctor of Philosophy

in

Counseling Psychology

Lehigh University

February 2013

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2013

Approved and recommended for acceptance as a dissertation in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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## Acknowledgments

There are many people who have provided me with support, assistance, and advice in the completion of this research project. Many thanks to my advisor, Dr. Grace Caskie who has been a source of tremendous knowledge, encouragement and compassion to me throughout this process. My deepest thanks to her for always encouraging me to pursue research that I am passionate about, even when the tasks seemed great. I would also like to extend my great thanks to all of the other faculty members who I have worked with during the course of my graduate studies at Lehigh University. Each has taught me valuable lessons and skills, many of which I have been able to apply to this dissertation project. Special thanks to Alayna Berkowitz, who assisted me in the data collection process for this project. Finally, thanks to my family, particularly my husband and daughter, who have provided me with more encouragement and support in this process than I could have ever imagined.

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## Abstract

As the older adult population in the United States begins to grow, the increasing need for psychologists specializing in geropsychology may put strains on the mental health care system. The current study examines contact with older adults, universal diverse orientation, empathy, and multicultural competence as predictors of attitudes toward older adults and in interest in working with this population in a national sample of graduate students in counseling ( $N = 266$ ). A modified version of the proposed model, which added a correlated residual between empathic concern and personal distress, showed acceptable fit to the data ( $\chi^2(139) = 244.19, p < .001, TLI = .91, CFI = .94, RMSEA = .05$ ). Results suggest that contact with older adults was a strong predictor of attitudes about older adults and interest in working with this population, while exploratory paths for UDO, empathy, and multicultural competence were non-significant. Results suggest the need for graduate programs to increase contact experiences available for students in order to increase positive attitudes and interest in working with seniors.

## Chapter I

### Introduction

The older adult population in the United States will grow rapidly as the baby boomer generation reaches older adulthood. By the year 2020, approximately 80 million people from the baby boomer cohort, which is made up of individuals who were born between the years 1946 and 1964 (U.S. Census Bureau, 2006), are projected to have turned 65 years of age (Knickman & Snell, 2002; Koenig, George, & Schneider, 1994). This will mark a large shift in the overall demographics of the U.S. and other countries around the world. Given this upcoming surge in the proportion of older adults in the population, investment in healthy aging, including both physical (Koplan & Fleming, 2000; Knickman & Snell, 2002) and psychological well-being (Danner, Snowdon, & Friesen, 2001; Hartman-Stein & Potkanowicz, 2003), will become key economic concerns (Wolinsky, Callahan, Fitzgerald, & Johnson, 1991). Healthier aging will allow for larger numbers of older adults to remain in the community and avoid entering into residential treatment facilities prematurely (Arno, Levine, & Memmott, 1999; Wolinsky, Callahan, Fitzgerald, & Johnson, 1991).

The field of mental health may be under-prepared for the projected increases in the number of older adults living in the community who will be in need of psychological services (Halpain, Harris, McClure, Jeste et al., 1999; Qualls, Segal, Norman, Nederehe, & Gallagher-Thompson, 2002). Additionally, because research suggests that the stigma around mental health issues has started

to decline in younger cohorts of older adults, a larger number of elders may seek out psychological services in the coming years (Currin, Hayslip, Schneider, & Kooken, 1998). Some researchers have predicted that the upcoming demographic shift could potentially become a “crisis” in which the current number of mental health care providers may not be able to meet the increased needs of the older adult age group (Jeste et al., 1999).

Despite the large number of professional psychologists practicing in the United States, very few devote half or more of their clinical hours towards working with older adult clients (Halpain et al., 1999). Additionally, those professionals in the field who are already working with older adults have limited access to continuing education opportunities on topics related to aging and report that their training in issues related to working with elders has come mainly from either informal work or personal experiences (Norman, Ishler, Ashcraft, & Patterson, 2001; Qualls et al., 2002). According to Lichtenberg and Rosenthal (1994), fewer than half of practitioners working with older adult clients in inpatient rehabilitation settings reported having any courses in aging during their graduate training, while only a little more than half of the participants had received professional supervision of therapy sessions with older adult clients.

Graduate programs in applied psychology continue to under-prepare those entering the field for working with older adults. Qualls et al. (2002) reports that most graduate programs in clinical and counseling psychology lack the level of training and preparation in areas related to aging that may be needed to prepare students to competently work with older adult populations. According to Qualls

et al., the majority of graduate programs in psychology offer limited practical opportunities in the field of gerontology, as well as insufficient coursework in topics related to aging. Of those doctoral programs in psychology that are accredited by the American Psychological Association (APA), only about 50% report that they offer a specific course in aging-related issues, while about 8% state that students have the option to take a specialty track in geropsychology (Everhart, Blieszner, & Edwards, 1996). Additionally, few internship opportunities are available in geropsychology (Norman, Ishler, Ashcraft, & Patterson, 2001). Thus, it is likely that a large percentage of graduating students in the field of mental health will not have been adequately trained to work with senior populations upon receiving their degrees. It remains unclear whether or not the limited amount of training in issues related to aging stems from lack of interest from either students or faculty, or from other underlying factors (Qualls et al., 2002). Either way, graduate programs will have to address increasing training in issues related to older adults' mental health in order to prepare a sufficient number of clinicians to work with older adults in the coming years (Jeste et al., 1999).

According to the APA (2004) ethical guidelines for work with older adult clients, psychologists should only provide therapy to older adults when they have an appropriate level of experience and training with this age group. In addition, psychologists should be aware of the ways in which their attitudes about aging and the aging process may influence their work with older adult clients. The APA also encourages psychologists to consult with their colleagues about their attitudes

toward aging, as well as to obtain further education for working with older adults. Additionally, the APA calls for psychologists to have an appropriate knowledge base in theory and research on aging, obtain an understanding of both social and psychological influences on aging, as well as gain awareness in issues related to diversity in the older adult population (e.g., the intersection of gender, ethnicity, and aging). Given that many psychologists have not received adequate training in their graduate programs for work with older adults, many professionals in the field should likely receive additional education, or possibly supervision, in their clinical work to provide competent mental health services to older adult clients (Qualls et al., 2002).

Attitudes toward aging held by trainees and faculty in the field of mental health may be one of the issues underlying the ways that aging has been historically ignored in graduate training (Halpain et al., 1999). Multiple studies have demonstrated that ageist attitudes persist in U.S. culture (e.g., Palmore, 2004; Perdue & Gurtman, 1990; Sharps, Price-Sharps, & Hanson, 1998). Younger adults report having more unfavorable attitudes toward older adults in comparison to middle adult or younger age groups (Kite & Johnson, 1988; Kite, Stockdale, Whitley, & Johnson, 2005). Additionally, older adults are likely to evaluate themselves more poorly in level of competence in comparison with younger age groups (Palmore, 2001). Research indicates that ageism is present in younger age groups and is often internalized by older adults themselves (Kite et al., 2005; Palmore, 2004). In addition, Perdue and Gurtman suggested that ageism

may be an automatic or unconscious response when younger adults evaluate a group of elders.

The concept of ageism was first introduced by Butler (1969), who discussed age discrimination as another form of prejudice in U.S. society. According to Butler's (1975) further work, ageism can be divided into three distinct categories: prejudice attitudes toward aging and older adult groups, direct discrimination against older adults, and institutional or societal practices that contribute to the discrimination of older adults. Building upon the work of Butler, Verwoerd (1976) was the first to discuss "gerophobia," or the avoidance of working with senior populations by mental health professionals. He proposed that gerophobia may come from clinical providers' own fears about aging and mortality, thus causing them to project their negative feelings on older adult clients. Often, these negative projections may be manifested in clinicians choosing not to work with aging clients.

Ageist attitudes are unique from other types of prejudice in U.S. society, such as racism or sexism. Unlike race or sex, age is constantly changing, and each person moves through various age groupings throughout the life span (Packer & Chasteen, 2006). Young adults, generally considered to be the "in group," are likely to become a part of the "out group" if they live into older adulthood (Nelson, 2004; Packer & Chasteen, 2006). Additionally, stereotypes about aging have been shown to differ between age groups, with older adults indicating more complex views of aging in comparison with younger adults (Hummert, Garstka, Shaner, & Strahm, 1994). Thus, it is possible that an

individual's feelings towards their own aging processes may influence their attitudes toward older adults as a group (Packer & Chasteen, 2006; Verwoerd, 1976).

Given the larger societal attitudes and stereotypes about aging, the American Psychological Association (APA, 2004) suggests that counselors may also be seen as susceptible to internalizing negative attitudes or stereotypes about working with their older adult clients. These attitudes may bias a counselor's ability to work with seniors or may even lead to avoidance in working with this general population. In a survey of psychologists who work in the U.S., James and Haley (1995) found that psychotherapists were more likely to give a poor prognosis to an older adult client, while a younger adult client experiencing the same symptoms was given a more optimistic prognosis. Gatz and Pearson (1988) similarly report that clinicians may make biased treatment decisions when working with an older adult versus a younger adult client, such as automatically assuming that an older client is experiencing depression or dementia.

According to Nelson (2004), individuals may hold both positive and negative stereotypes regarding older adulthood. Some positive stereotypes cited in the literature include that older adults are wealthy, have additional wisdom from age, have more experience in comparison to younger adults, or are highly educated (APA, 2004; Gatz & Pearson, 1988). Some negative stereotypes about aging, on the other hand, include ideas that older adults are frail, forgetful, have higher rates of mental illness (e.g., depression), are likely to be experiencing dementia or Alzheimer's disease, are experiencing cognitive decline, are lonely or

isolated, lack interest in sex, or are too stubborn to change (APA, 2004; Gatz & Pearson, 1988).

Much debate has occurred as to the extent that ageism actually influences the attitudes of younger adults toward older adults. A wide scale meta-analysis of 232 research studies examining attitudes towards older versus younger adult age groups (Kite et al., 2005) reported that the majority of studies supported the hypothesis that more negative attitudes exist toward older adult age groups in comparison with younger adult age groups. The studies of attitudes towards aging included in this meta-analysis, however, differed greatly by the type of evaluations of older adults that participants were asked to make. For instance, participants seemed to respond in an ageist way when rating the competence of a generic older adult. However, when other types of contextual information about an older adult (e.g., personality type) were included in the research, results indicated a smaller discrepancy based on age. Kite et al. suggest that attitudes towards different age groups are multi-faceted and are often likely to be influenced by other factors, in addition to age differences.

According to Palmore (2001), the majority of older adults will experience some form of either real or perceived ageism during their lives. Over 77% of their sample of adults over the age of 65 reported having experienced ageism once, and more than half reported experiencing multiple instances of ageism. The most frequently reported forms of ageism found in Palmore's study were: ageist jokes; feeling ignored by younger adults; being insulted or patronized by younger adults; being shown disrespectful behavior by younger adults; or having a



younger adult make assumptions about frailty due to age. More serious forms of ageism (e.g., being denied employment or housing) were experienced less frequently by the sample than more benign types (e.g., being told an ageist joke). These messages about age come from a variety of sources, and are reinforced often in the media, particularly with the portrayal of older adults on television (Bell, 1992). Older adults may either over or under report instances of ageism, due to hypersensitivity about age, or a lack of awareness when true instances of age discrimination are experienced (Nelson, 2005). Thus, the actual prevalence of ageism has been difficult to determine.

Individual differences among younger adults may explain more of the variability in attitudes towards older adults than age grouping alone (Hummert et al., 1994). Specifically, contact with older adults may impact the attitudes of younger adults towards this age group (e.g., Harwood, Hewstone, Paolini, & Voci, 2005; Hummert et al., 1994). Individuals who have had more frequent contact with grandparents are more likely to report increased positive attitudes toward older adults (Harwood et al., 2005). Heyman et al. (2005) demonstrated that contact with older adults through personal experiences, volunteer work, and employment increased undergraduate students' desires to advocate for aging-related issues. According to Mason and Sanders (2004), a group of social work students in a fieldwork placement who were working with older adults reported increased desire to continue working with this population, as well as increased understanding of issues related to aging. Thus, both personal and professional

experiences with aging adults may increase trainee interest in working with this age group, as well as impact attitudes toward aging.

Empathy may be an additional factor that contributes to an individual's attitudes toward older adults. According to Mason and Sanders (2004), social work trainees who were currently working with older adult clients expressed increased compassion and empathy for this age group following their fieldwork experience. Intrieri, Kelly, Brown and Castilla (1993) report that a group training intervention on issues related to aging for a group of medical students significantly increased students' positive attitudes and empathy for older adults. Additionally, a study of direct care workers conducted by Braun, Cheang, and Shigeta (2005) suggested that workers improved in their ability to empathize with their older adult clients and had more positive attitudes toward elders following a 24 hour curriculum on caring for aging persons. Thus, individuals reporting higher levels of empathy may also have a greater interest in working with older adults and increased positive attitudes toward this age group.

Openness to diverse experiences may also influence attitudes toward aging and interest in working with older adult clients (Nelson, 2004). Universal diverse orientation (UDO) is defined by Miville et al. (1999) as "an attitude of awareness and acceptance for the similarities and differences between people" (p. 291). Higher levels of UDO have been linked with increased empathy and greater multicultural competence in therapists (Miville, Carlozzi, Gushue, Schara, & Ueda, 2006). UDO has not been studied in relation to attitudes toward aging; however, the literature on racism suggests that there may be an important link

between UDO and attitudes of majority groups toward those of minority status, such as older adults. According to Flynn (2005), UDO was linked with fewer prejudicial racial attitudes in a group of White participants, as well as to more positive impressions of Black targets. It seems that more research is needed in order to establish or disconfirm potential links between UDO and attitudes toward older adults.

Finally, multicultural competence may be an additional area that is linked with attitudes toward older adult age groups. Hinrichsen (2006) points out that ethnic and gender minority older adults may have specific barriers in negotiating their multiple identities that differ from other age groups. According to Yali and Revenson (2004), psychologists will need to improve their ability to understand the intersection between multiple cultural identities, particularly with the changing demographics of society in the United States. Developing a more complex understanding of multiple identities will involve encouraging psychologists to increase their understanding of the importance of aging and its intersection with other identities for older adult age groups (Hinrichsen, 2006). Thus, continued research on counselor multicultural competence in relation to attitudes toward aging is an important future area in the mental health field.

No studies to date have been conducted on the relationships between multicultural competence in counselors and attitudes toward older adults. Based on the current literature, however, it is likely that there may be connections between these constructs. Increased empathy has been linked with greater multicultural competence in the literature (Constantine, 2000). Additionally,

increased racism has been shown to be significantly related to decreased self-reported multicultural competence in groups of school counseling trainees (Constantine, 2002) and marriage and family therapists (Constantine, Juby, & Liang, 2001). It is possible that a similar relationship may exist for attitudes toward aging, with increased negative attitudes toward older adults being predictive of decreased self-reported multicultural competence.

Cohen (2001) called for additional research into the underlying factors that account for negative attitudes toward older adults. Despite evidence for the importance of increasing counselor training and competence for working with aging populations, few studies have examined attitudes toward older adults and interest in working with this population in a group of trainees in counseling. Research into this area is important because it may benefit graduate programs in evaluating the ways in which they can help to spark additional interest in the field of gerontology. Additionally, expanding the literature in this area may be helpful to graduate programs in determining the degree to which pre-existing attitudes may impact a student's interest in working with older adult clients.

The goal of the proposed study is to examine a complex hypothesized model for the relationships among the following variables: trainees' attitudes toward older adults, interest in working with older adults, contact with older adults, multicultural competence, UDO, and empathy. The use of structural equation modeling (SEM) allows for an overall test of model fit, the use of latent constructs, and examination of individual paths between variables. As shown in Figure 1, the following *a priori* hypotheses are made 1) Greater contact will

significantly predict more positive attitudes toward older adults and greater interest in working with this population. 2) Increased empathy will significantly predict increased multicultural competence, more positive attitudes toward older adults, and greater interest in working with elders. 3) Greater UDO will significantly predict increased multicultural competence, more positive attitudes toward older adults, and increased empathy. 4) Increased multicultural competence will be significantly related to more positive attitudes. 5) More positive attitudes will predict greater interest in working with older adults.

## Chapter II

### Literature Review

#### **Mental Health and Aging**

Mental well-being is considered a significant aspect of healthy aging (Von Faber et al., 2001); thus, it is important that mental health issues and their influence on other domains be understood in greater depth in the older adult population. Self-reports of poorer mental health in older adults have been linked with declines in functional ability and increased mortality rates over time (Lee, 2000). Older adults who report greater depressive symptoms utilize general medical services more frequently than elders who deny having depressive symptoms (Unutzer et al., 1997). Seeking treatment for mental health issues, however, may be related to improved health outcomes. For example, adults over the age of 55 who receive mental health treatment utilize other medical services significantly less often than adults who do not receive mental health treatment (Mumford, Schlesinger, Glass, Patrick & Cuerdon, 1984; Mumford, Schlesinger, Glass, Patrick & Cuerdon, 1998), because such treatments are effective in decreasing psychological symptoms as well as some of the physical symptoms linked with psychological distress (Olfson, Sing, & Schlesinger, 1999). Despite the connection between physical and mental health in older adults, psychological services have been historically underutilized by this age group (Wang et al., 2005).

In a nationally representative sample of American adults, Wang et al. (2005) report that older adults in general, as well as other traditionally

underserved groups such as ethnic minorities and individuals from low income homes, were among the groups most likely not to receive any form of treatment for a mental illness. Older adults who meet criteria for a mental disorder are also less likely than younger or middle aged adults with similar symptoms to seek out mental health care for a psychological disorder (Klap, Unroe & Unutzer, 2003). Similarly, Have et al. (2000) found that older adults engage in treatment for a mental illness less often than younger groups; however, these authors used a European sample for their study, the results of which may not generalize specifically to American older adults. Additionally, older adults are less likely to be given referrals to mental health specialists, such as counselors, by their primary care doctors than those of other age groups (Klap et al., 2003).

Stigma around receiving mental health care treatment may be one important factor in the underutilization of these services by older adults; however, more research is needed in this area (Bartels & Smyer, 2002; Wang et al., 2005). Older adults who perceived greater disapproval from their support systems are less likely to discuss their depressive symptoms with their primary care doctor (Corrigan, Swantek, Watson, & Kleinlein, 2003). Conner et al. (2010) extended the literature in this area by examining variations in perceived stigma for receiving mental health treatment by ethnic group, collecting data on both African American and White seniors. According to the authors, the majority of older adults in their sample reported a high level of internalized stigma associated with receiving psychological services, with African American elders endorsing even greater stigma in comparison with Whites of this age group. Little is known

about perceived stigma for engaging in psychological service use in other ethnic and cultural groups, however.

Of the small number of older adults who do receive psychological services, those who perceive greater stigma related to mental health issues may be more likely to discontinue their treatment prematurely (Sirey et al., 2001). In a large sample of non-institutionalized elders, Coulton and Frost (1982) report that sex of the individual and perceived need for mental health services were also significant predictors of mental health service use in older adults. Specifically, women over the age of 65 are more likely to receive mental health services than men in this age group, and elders who perceived that they were in greater need of mental health services were more likely to utilize psychological services than those who did not feel that mental health issues were a significant need for them currently. Given that this study was conducted over 25 years ago, however, additional research is needed as to the impact of sex and perceived need in the current cohort of older adults.

Suicide attempts and suicide completion may be considered the most serious mental health risk to older adults. Although only about 12% of the U.S. population is over age 65, older adults made up about 16% of all completed suicides in 2004 (NIMH, 2007). This value is 50% higher than the national suicide rate for other age groups (NIMH, 2007). According to the Centers for Disease Control and Prevention (2007), men over age 65 are at greater risk for suicide completion than older adult women. Additionally, White men over age 85



had the highest rate of completed suicide attempts in the older adult age category in the U.S. (Centers for Disease Control and Prevention, 2007).

Lack of training on suicide risk in health care providers may be one important factor in the high numbers of suicides completed in the older adult age group. Luoma, Martin, and Pearson (2002) report that approximately 58% of adults who had completed a suicide attempt had been to see their primary care doctors within the month prior to their suicide. The authors also found that more than 77% of older adults had seen a primary care physician within the last year before committing suicide. In comparison with younger and middle aged adults, older adults had the most frequent rates of visiting their primary care physicians and also the highest rates of completed suicides. Thus, continued outreach to older adults by primary care doctors and mental health service providers may be an important way to reduce the number of suicides in this age group. No known studies have examined the proficiency of mental health counselors in assessing suicide risk in the older adult population, and it seems that more research is needed in this area.

Although older adults may be at an increased risk of mental illness, few psychologists are experienced in working directly with this population. A very small number of psychologists in the United States currently specialize in geropsychology, and only a limited number of graduate programs provide specialty training in this area for students (Qualls, Segal, Norman, Nederehe, & Gallagher-Thompson, 2002). The low numbers of psychologists specializing in aging may be due to the lack of mental health service utilization by the current

cohort of older adults, or to other factors such as lack of training or avoidance of working with older adult clients (Gatz & Pearson, 1988). The literature in this area is currently very limited, however. Additional research is needed in order to better understand how to increase the number of psychologists practicing in geropsychology. Additionally, the demographics of the U.S. population are beginning to change as the baby boomer cohort moves into older adulthood in the coming years (Knickman & Snell, 2002). As the numbers of older adults increase, a higher number of mental health service providers will be needed who specialize in working with older adult clients (Knickman & Snell, 2002).

**Summary.** Older adults currently receive mental health treatment less frequently than younger adults in the U.S. (Klap, Unroe & Unutzer, 2003), although the consequences of not receiving appropriate treatments can be very detrimental to adults in this age group (e.g., Luoma, Martin, & Pearson, 2002). Greater numbers of older adults are also likely to seek out psychological services in the future as the geriatric population grows (Knickman & Snell, 2002) and stigma around the receipt of mental health services decreases (Bartels & Smyer, 2002). The literature suggests, however, that the field of mental health is currently underprepared to meet the increased needs of seniors (Qualls, Segal, Norman, Nederehe, & Gallagher-Thompson, 2002). However, published research is quite lacking regarding the ways in which the field should address the growing need for psychologists who specialize in working with older adults.

## **The Baby Boomer Cohort**

The baby boomer generation in the United States is defined as the cohort of babies born between the years 1946 to 1964 (U.S. Census Bureau, 2006). In the 1920s and 1930s, large drops were observed in the national rate of births in the United States (Easterlin, Schaeffer, & Macunovich, 1993). The baby boom represented a dramatic increase in births following World War II (Easterlin, Schaeffer, & Macunovich, 1993). According to Hughes and O’Rand (2000), over 75 million babies were born during this 18-year period. As a result, the baby boomer generation is larger than both the cohorts that were born before and after it. Baby boomers currently make up about 40% of all adults living in the United States (Maples & Abney, 2006).

As the baby boomer cohort moved through the adult years, their large size changed the job market, impacted housing, and shifted the economy in the United States (Hughes & O’Rand, 2000). The oldest of the baby boomer cohort turns age 65 during the year 2011 (Wan, Segupta, Velkoff, & DeBarros, 2005). When the baby boomers reach older adulthood, their retirement and health care needs are again likely to cause many changes to the economy of the United States (Hughes & O’Rand, 2000; Lee & Skinner, 1999). Life expectancy is increasing throughout the world, and the baby boomer cohort is also likely to live longer than previous generations (United Nations Department of Economic and Social Affairs, Population Division, 2007b). It is possible that aging baby boomers will put large strains on the economic and health care systems in the United States (Maples & Abney, 2006).

The baby boomer cohort has utilized psychotherapy services to a much greater extent than previous generations of adults (Nelson, 2005). It is likely that this cohort will continue to engage in mental health treatment throughout older adulthood as well. For example, a much larger number of individuals in the baby boomer cohort have engaged in treatment for substance abuse of drugs and alcohol during their lives than the current cohort of older adults has (Patterson & Jeste, 1999). The number of elders in need of substance abuse treatment is projected to increase from over one million currently to over four million in the year 2020 as the baby boomers age (Gfoerer, Penne, Pemberton & Folsom, 2003). Substance abuse treatment for older adults may require different approaches by mental health care providers, as issues such as dementia and cognitive impairment may also come into play in substance use treatment for this age group (Patterson & Jeste, 1999). Literature on the treatment of mental health problems outside of the field of addictions within the baby boomer cohort is sparse, and additional research into the mental health service use of this group is needed.

**Summary.** The baby boomer cohort has changed many aspects of life in the United States, and the large numbers that make up this group may also change the landscape of mental health care (Maples & Abney, 2006). In 2011, the oldest members of the baby boomer cohort will turn age 65. Baby boomers have used psychological services more often than previous generations (Nelson, 2005). Some research has used the engagement of the baby boomer cohort in drug and alcohol treatment to predict this cohorts' future use of rehabilitative services (Gfoerer, Penne, Pemberton & Folsom, 2003). More literature is needed,

however, that specifically examines the baby boomer cohort's general mental health service usage over time, in order to better understand the future service use patterns of this group.

### **Current State of Geropsychology**

Individuals in the early and middle age groups currently make up the largest percentage of the U.S. population with a diagnosable psychiatric disorder; however, with the aging of the baby boomer cohort, older adults will soon be the largest age group suffering from psychiatric complaints (Bartels & Smyer, 2002). Specifically, about 15 million individuals in the 65 and over age group are expected to meet DSM-IV (American Psychiatric Association, 2000) diagnostic criteria for a mental illness by the year 2030 (Jeste et al., 1999). All of the research into this area, however, is based on projections of future service use (e.g., American Psychiatric Association, 2000; Bartels & Smyer, 2002; Jeste et al., 1999), thus the actual number of older adults who will be seeking psychological services may vary. Many researchers suggest that the field of mental health is currently under-prepared for this increase in demand for services from the aging population (Qualls, Segal, Norman, Nederehe, & Gallagher-Thompson, 2002).

Approximately 76,000 psychologists currently practice in the United States; however, fewer than 1,000 of them specialize in geropsychology or spend one third or more of their clinical hours with older adult clients (Halpain, Harris, McClure & Jeste, 1999). According to the National Institutes of Health (1987), approximately 5,000 full-time psychologists will be needed for working with older adult clients by 2020. The demand for psychologists and psychiatrists who

can consult with medical doctors regarding mental health issues is also likely to increase according to some researchers (e.g., Bartels & Smyer, 2002), as the majority of older adult clients are currently seen in the hospital or other outpatient medical settings (Colenda et al. 2002).

According to the limited literature available in this area, appropriate graduate training and continuing education opportunities for students in mental health, who will be working directly with older adults in the future, are extremely lacking (Administration on Aging, 2001; Qualls et al., 2002). Qualls and colleagues (2002) conducted a survey of training and education in working with older adults in 1,227 members of the American Psychological Association who are practicing as therapists. Participants reported that their training programs provided little coursework on issues related to aging and few fieldwork opportunities for working with older adult clients. Current students in applied psychology, however, were not included in the Qualls et al. sample, and more research on this group is still needed. Additional research suggests that few classes or fellowships are available for medical students planning to enter the field of geriatric psychiatry (Small, Fong & Beck, 1988). Given the small amount of training in geriatric mental health, it is unlikely that a sufficient number of emerging professionals will be prepared to work with aging baby boomers (Small et al., 1988).

Few continuing education opportunities exist for professionals already working in the field in issues related to geriatric care (Qualls et al., 2002). According to Halpain et al. (1999), incentives for working with older adults such

as designing fellowships or loan forgiveness programs may be needed in order to attract a sufficient number of mental health care workers to the field. Small et al. (1988) also suggest that universities future focus should be on training more academic leaders in the field of geropsychology, in order to attract more students to this specialty area.

In addition to the low availability of training in the field, research on aging related issues that could inform practice in the area of geropsychology has also been lacking (Bartels & Smyer, 2002). Although some evidence-based practices have been established for working with older adults, much additional research is needed in the field of geropsychology (Bartels et al., 2004). Of particular importance will be research related to the most effective outpatient interventions for older adult clients, as outpatient mental health care treatment is much less costly than inpatient treatments (Goldstein & Horgan, 1988). Currently, older adults with a mental illness are more likely to be hospitalized in an inpatient setting than to receive outpatient treatment for mental illness (Bartels & Smyer, 2002). Improved outpatient treatments could help to offset some of the economic burden associated with mental health care for aging baby boomers (Bartels et al., 2004).

**Summary.** The field of mental health is currently underprepared for the projected growth in older adults who will be suffering from psychiatric illnesses (National Institutes of Health, 1987). Current research on the training of students in the field of mental health has described the lack of focus on geriatric populations (Qualls et al., 2002), but provides little explanation as to why

graduate programs do not offer sufficient attention in this area. More research is needed as to the factors that may underlie this problem. Additionally, little research has been conducted examining the overall effectiveness of general psychotherapy for older adults, as well as specific interventions that may be considered best practice when working with this population, and this is an important subject for future study (Bartels et al., 2004).

### **Attitudes toward Aging**

One possible explanation for the lack of interest and availability of training in geropsychology is negative attitudes, or ageism, toward older adults. Butler (1969) was the first to discuss the term ageism, using it in a similar framework as racism and sexism. According to Butler, ageism can be defined as prejudiced attitudes toward older adults and discrimination against this age group by both individuals and institutions. Later, Butler (1975) discussed the gap between the numbers of older adults in need of psychiatric services and the number of providers willing to work with this population. According to Butler, ageism was the main source of psychiatrists' avoidance of working with older adult populations.

Verwoerd (1976) introduced the term "gerophobia" to describe avoidance of working with older adult clients and ageism in psychiatrists themselves. Ageism on the part of mental health professionals may be the result of projections about the aging process or unresolved thoughts about death and the life cycle (Nelson, 2004, 2005; Packer & Chasteen, 2006; Verwoerd, 1976). Psychologists may avoid working with the terminally ill or older adult clients, due to their



countertransference related to death and end of life issues that are often a salient topic in therapy for individuals from these groups (Packer & Chasteen, 2006).

Gatz and Pearson (1988) suggest an alternative view to gerophobia and the biases of clinicians toward older adults. They propose that psychologists may not be outwardly avoidant or ageist toward older adults. Clinicians are instead likely to hold both positive and negative stereotypes about working with older adult clients. For example, psychologists may be more likely to make biased treatment decisions toward older adults, such as over-diagnosis of certain mental illnesses such as dementia, Alzheimer's disease, or depression. Additionally, psychologists may be more likely to ignore some symptoms that truly signify a mental health issue, such as increased forgetfulness, attributing them to aging alone and not to a more serious psychological problem.

Attitudes toward older adults have been shown to vary by age group. Younger adults are typically more likely to rate older adults less favorably than other age groups (Kite et al., 2005; McTavish, 1971). For example, Purdue and Gurtman (1990) found that participants were more likely to recall negative traits and chose negative traits more quickly after being prompted by the words "old person" in comparison to "young person." The authors suggest that these findings provide some evidence for an automatic or unconscious component of negative attitudes toward older adults in younger populations.

More recent research suggests that the findings that younger adults are more likely to evaluate older adults negatively may be somewhat overstated, however. In a meta-analysis of attitudes toward older adults that included 232

effect sizes, Kite et al. (2005) found that many studies supported more neutral evaluations of older adults instead of overly negative ones. When younger participants were forced to compare “typical” older and younger adults, older adults were evaluated more negatively (e.g., Seefeldt, Jantz, Galper & Serock, 1977), but this was not the case when older adults were evaluated alone as a group by younger adults (e.g., Levin, 1988). Kite and colleagues suggest that the direct comparison between older and younger age groups encourages younger adults to rate their own group more highly than older adults. Older adults, who have held membership in both groups over the course of their lifetimes, are more likely to rate both groups equally.

Kite et al.’s (2005) finding regarding younger adults’ more negative evaluation of older adults may be explained by in-group bias theory. According to Gaertner and Dovidio (2000), in-group members are more likely to show preference for members of their own group and may show dislike or prejudice toward members of the out-group. In-group bias has been demonstrated in a variety of research studies. A classic study on in-group bias by Sherif and Sherif (1956) showed that boys who were assigned to two different teams at a summer camp showed in-group bias, making more friendships within their own team and showing greater hostility toward the other team, within days of forming these arbitrary groups. More recently, research has found that in-group bias is present between racial groups (e.g., Stokes-Guinan, 2011; Xu, Zuo, Wang, & Han, 2009), obese versus non-obese groups (e.g., Popan, Kenworthy, Barden, & Griffiths, 2010), and Republicans and Democrats (e.g., Munro, Weih, & Tsai, 2010). Thus,

younger adults may show a similar preference for their own age group over an older adult group when asked to make a direct comparison.

Studies in which participants are asked to think of a “typical” older adult also tend to show more negative attitudes (e.g., Stewart, Eleazer, Boland, & Wieland, 2007) in comparison to studies in which contextual information about the older adult, such as social status or gender, is included (e.g., Graham & Baker, 1989). For example, an item from the Kogan attitude scale (Attitudes toward Old Persons scale; Kogan, 1961) instructs participants to rate the following statement, “It would probably be better if most old people lived in residential units with people their own age.” This question encourages the participant to think of an exemplar of the category for older adult, without further specifying any additional information about the individual. It is possible that these types of prompts cause younger participants to think of a more stereotypical older adult than when additional contextual information is given about an elder (Gatz & Pearson, 1988; Kite et al., 2005; Matyi & Drevenstedt, 1989).

In a study of undergraduate attitudes toward older and younger adult counseling clients, Matyi and Drevenstedt (1989) included contextual information about the target being evaluated in addition to age. Participants were divided into four groups evaluating one of the following clients: a 25 year old man, a 25 year old woman, a 74 year old man, and a 74 year old woman. The case histories presented to participants varied only by the age and gender of the client; participants also listened to audio tapes of a mock counseling session with the client. The participants were then asked to answer items measuring their

evaluations and personal feelings toward the client such as, “I would rate my desire to continue to interact with this client as 1 (very weak) to 7 (very strong)”. Results showed no significant differences in ratings of the older and younger clients. Similarly, Cohen (2001) found that younger participants reported more neutral attitudes after more descriptive information about the older adult being evaluated was included. Thus, age alone may not be the most significant factor in attitudes toward seniors (Gatz & Pearson, 1988). Although little research has specifically examined the links between greater positive attitudes toward older adults and counseling trainees’ interest in working with this population, some literature in this area shows a possible connection between these two variables. Social work students who reported more negative associations with aging, such as physical losses and disease, were also less likely to report an interest in working with older adults upon graduation (Lawrence, Jarman-Rohde, Dunkle, Campbell, Bakalar, & Li, 2002). Similarly, Robert and Mosher-Ashley (2000) found that college students who thought that going into the field of gerontology would be depressing were less likely to report having an interest in working with older adults.

A strong body of research exists in the area of attitudes toward aging in younger versus older adult groups (e.g., Levin, 1988; Matyi & Drevenstedt, 1989), and a large scale meta-analytic study has been conducted of this literature (Kite et al., 2005). A gap in the current research on attitudes toward aging, however, is found in the field of mental health counseling. Although some theoretical groundwork has been laid in this area (e.g., Gatz & Pearson, 1988), no

known studies have examined the attitudes of a large sample of mental health professionals toward working with older adult clients. Additionally, no research has been conducted using a representative group of trainees in the field of counseling.

**Summary.** Ageism may be one of the factors that underlies the avoidance of focusing on the area of counseling older adults in graduate training. Despite this possible connection, research on attitudes toward aging within graduate programs in counseling has been quite limited to date. The available literature focuses mainly on younger populations' evaluations of older adults (Kite et al. 2000). Some research on the links between ageist attitudes and interest in working with older adults has been conducted in social work students (Lawrence et al., 2002) and undergraduates (Robert & Mosher-Ashley, 2000). Thus, it is likely that similar connections may be found in graduate trainees in the area of counseling.

### **Multicultural Competence**

Multicultural competence, or a counselor's knowledge, awareness, and skills related to working with diverse groups of clients, has become an increasingly important topic in training new mental health professionals (Constantine & Ladany, 2001). No existing research has been conducted on the possible connections between multicultural competence and the desire of counseling trainees to work with older adult clients, however. Given the focus of multicultural competence on increasing a therapist's understanding of their own personal biases and improving skills for working with clients of various minority

groups (Ivey, 1994), it seems possible that counseling trainees reporting greater multicultural competence will be likely to hold fewer negative attitudes toward older adults and may be more willing to work with this population.

According to Yali and Revenson (2004), as the demographics of society in the United States change, psychologists are more likely to work with older adults from diverse ethnic and social minority groups. The authors state that psychologists must develop a greater understanding of the multiple identities and contexts in which older adults live in the future. Yali and Revenson's work, however, is theoretical in nature, and no known studies have been conducted regarding psychologists' ability to understand the multiple identities of an older adult client. Empirical research in this area will be necessary to further understand the impact of multiple identities on aging. According to Hinrichsen (2006), it is likely that experiences of the aging process will be different depending upon factors such as gender, race, ethnicity and socioeconomic status, although no known research exists in this area. Thus, the field of psychology must increase its focus on education and training of new professionals for working with diverse older adults by strengthening coursework in this area, providing mentoring from faculty with specialties in geropsychology and offering continuing education opportunities related to culture and aging.

No research to date has examined multicultural competence and its relationship with attitudes toward aging and interest in working with older adults. Based on literature with other minority populations, however, it is possible that those with greater self-reported multicultural competence may have more positive

attitudes toward working with the older adult population (e.g., Constantine & Ladany, 2001). Given that older adults may also be considered to be a minority group, experiencing prejudice and possibly ageism (Butler, 1969), it is likely that similar connections may be found within this population.

**Summary.** No known literature has examined the links between attitudes toward aging and multicultural competence in graduate students in the field of counseling. Some research does suggest that psychologists will increasingly need to improve their skills for working with older adults from a variety of minority groups, however, as the demographics in the U.S. continue to change (Hinrichsen, 2006; Yali & Revenson, 2004). Research with other minority populations shows that greater self-reported multicultural competence may be linked with more positive attitudes in working with minority groups (e.g., Constantine & Ladany, 2001). Additional research examining the links between multicultural competence and attitudes toward older adults is still needed.

### **Contact with Older Adults**

In addition to ageism, many other factors may influence the attitudes of trainees' in the field of mental health toward elders and their interest in working with this group of clients. Previous contact with older adults may be one salient factor that influences an individual's interest in working with older adult clients (Heyman et al., 2005). This contact hypothesis was first discussed within the context of racism, stating that greater contact with individuals of minority groups could lead to decreased prejudiced attitudes (Allport, 1954; Hewstone & Brown, 1986).

Allport (1954) posited four important components of contact between ethnic groups that have an effect on changing negative attitudes between groups. According to Allport, both groups should be of equal status during contact, groups must be working toward mutual goals, the contact situation ought not to involve competition between group members, and someone in authority should approve of the contact situation. In a meta-analysis of 515 studies on intergroup contact, Pettigrew and Tropp (2006) found that contact had a generally positive effect on improving attitudes between a variety of groups. The authors also confirmed that the four original factors defined by Allport increase the effects of intergroup contact.

Research on the effect of quality of contact between older and younger adults is currently limited. However, literature in other areas of intergroup contact seems to show that the type of contact is important in determining its effect on ingroup bias. With regards to racism, Amir (1969) hypothesized that greater positive contact between ethnic group members was more likely to reduce prejudicial attitudes towards the group as a whole; however, negative contact could actually have the opposite effect. For example, in a classic study of ingroup/outgroup contact, Sherif and Sherif (1956) placed boys at a summer camp into two randomly selected teams. After the teams began displaying prejudice behavior toward each other, the authors sought to determine whether contact could significantly decrease this bias. Although contact alone between the groups did not change ingroup bias, working toward common goals with outgroup members did have a substantial effect on reducing bias between the groups. Thus,



both quantity and quality of contact may influence attitudes toward stereotyped groups, including older adults.

Similarly, greater contact with older adults across the lifespan may be related to more positive attitudes toward this population, and a large body of existing research supports this concept. Harwood, Hewstone, Paolini, and Voci (2005) found that grandchildren who had more frequent contact with their grandparents were more likely to report positive attitudes towards older adults than those with less frequent contact. Additionally, children who attended a preschool in which several older adult teaching aides worked every day reported more positive attitudes toward older adults than children in a preschool with no older adult staff (Caspi, 1984). In a group of young adults, Hale (1988) found that those who reported greater contact with older adults were more likely to have increased knowledge about this group and held fewer stereotypes about aging.

Working directly with older adults through either fieldwork or volunteer experiences has also been linked with more positive attitudes in graduate students (Heyman et al., 2005; Mason & Sanders, 2004). Research in this area is limited, however, to samples of pastoral counseling students (Heyman et al., 2005) and trainees in social work (Mason & Sanders, 2004). In addition to direct contact, coursework and informational seminars on older adults have also been shown to improve younger adults' attitudes toward this population. For example, medical students who took a seminar in working with seniors reported more positive attitudes toward this population one year after the course had ended (Wilson & Hafferty, 1980). Similar results were found for a group of undergraduate students

who watched an instructional video about aging and later participated in a group discussion about older adults (Ragan & Bowen, 2001).

The findings that increased contact with older adults leads to more positive attitudes toward this population have not been consistent throughout the literature, however. According to Doka (1985), adolescents who spent time interviewing an older adult reported feeling more connected to the person that they had interviewed, but did not report changes in their attitudes about older adults as a group. Additionally, in their sample of White and Black pre-adolescents, Harris and Fiedler (1988) found that White female pre-adolescents reported the most positive attitudes toward elders, but amount of contact with an older adult was not significantly related to their attitudes. The authors suggest that cultural differences may play a large role in attitudes toward the senior population.

The goal of the present study is to examine contact as a predictor of both attitudes toward older adults and interest in working with this population. Contact with outgroup members has been shown to improve attitudes of ingroup members toward the outgroup with a variety of populations (e.g., Herek & Capitamio, 1996) and more specifically between younger and older adults (e.g., Harwood, Hewstone, Paolini, & Voci, 2005; Mason & Sanders, 2004). Additionally, greater contact has been shown to increase desire to be exposed to outgroup members in the future (e.g., Mason & Sanders, 2004). No known studies to date, however, have examined general contact with older adults and its effects on attitudes and interest in working with seniors in a group of counseling trainees.

**Summary.** The contact hypothesis, proposed by Allport (1954), states that increased contact with members of a minority group may change attitudes toward that group in the future. The literature on contact between older and younger adults generally supports this hypothesis (e.g., Harwood, Hewstone, Paolini, & Voci, 2005). No known studies, however, have examined quality of contact between older and younger adults as a predictor of counseling trainees' attitudes toward senior populations. Literature on medical students (e.g., Wilson & Hafferty, 1980) and trainees in the field of social work (e.g., Heyman et al., 2005; Mason & Sanders, 2004) also lend support for a connection between contact and attitudes toward older adults in trainees in counseling. No research has been conducted to date, however, on the relationship between contact and attitudes in this specific population.

### **Universal Diverse Orientation**

Universal diverse orientation (UDO) was first introduced in the literature by Miville and colleagues (1999). UDO describes a positive attitude toward the diversity of others and feelings of acceptance about the differences among people. UDO has been linked with many aspects of multiculturalism in the literature (Constantine, 2001; Miville, Carlozzi, Gushue, Schara, & Ueda, 2006). According to Constantine et al. (2001), greater UDO was associated with greater self-reported multicultural counseling competence. Spanierman, Neville, Liao, Hammer, and Wang (2008) found that greater UDO was related to more positive racial beliefs and greater racial acceptance in a group of undergraduate students. Spanierman et al. additionally found that increased training in multicultural

counseling as measured by attendance of multicultural workshops was related to greater UDO.

Miville and colleagues (1999) include one reverse scored item on the full UDO scale that pertains specifically to age differences, stating, “It's often hard to find things in common with people from another generation.” Thus, it seems that the authors of the UDO scale did envision the acceptance of age differences as an important component of UDO. UDO has not, however, been studied in relation to questions related to aging to date. This is a notable gap in the research on the UDO construct, particularly as the scale itself contains an item related to intergenerational interactions. Studying the relationship of UDO and attitudes toward aging seems to be an important extension of the existing literature utilizing this variable.

UDO has also been studied in conjunction with a wide range of other relevant variables. Miville, Carlozzi, Gushue, Schara, and Ueda (2006) report that increased UDO was related to greater empathy in a group of over two hundred counseling graduate students. Singley and Sedlacek (2009) found that students' race and gender were significantly linked with UDO; specifically, White students and men tend to have significantly lower levels of UDO in comparison to students of Color and women. Greater UDO has additionally been correlated with increased agreeableness (Strauss & Connerly, 2003), greater perceived academic achievement (Singley & Sedlacek, 2004), and increased openness to new experiences (Strauss & Connerly, 2003; Thompson, Brossart, Carlozzi, & Miville, 2002).

No studies to date have examined the relationship of UDO to attitudes toward older adults or to counselor trainees' interest in working with this population. The existing body of research on UDO, however, suggests that it is relevant to research on attitudes toward older adults. Given the links between greater UDO and increased positive attitudes toward minority groups (e.g., Spanierman, Todd, & Anderson, 2009), it is likely that similar relationships may exist within the majority group of younger adults toward the minority older adult age group (Butler, 1969). Thus, counseling trainees who report greater UDO may be more likely to have increased positive attitudes toward older adults and may be more open to working with this population in the future.

**Summary.** UDO is described as a positive attitude toward and appreciation of diversity (Miville et al., 1999). No research has been conducted on UDO and attitudes toward older adults and interest in working with this population. Greater UDO has been linked with increased multicultural competence, more positive racial attitudes, and greater empathy (Spanierman, Neville, Liao, Hammer, & Wang, 2008). Existing literature linking UDO with these important variables, however, suggests that another natural extension may be made between UDO and attitudes toward older adults and interest in working with this population.

### **Empathy**

Empathy, or the sharing of similar emotions and cognitive understanding with another person, has been widely studied in psychotherapy (Eisenberg & Strayer, 1990). Empathy has been shown to be one of the most important

indicators of successful therapy (Lambert & Dean, 2001). Several studies demonstrate that increasing knowledge and information through seminars about older adults may help to increase empathy for this population (e.g., Braun, Cheang, & Shigeta, 2004). In a study by Varkey, Chutka, and Lesnick (2006), medical students who engaged in a simulation of the aging experience, including loss of functional status and living in a residential treatment facility for a short period of time, reported significantly greater empathy for working with older adult patients following this experience. An educational intervention was also shown to increase interest in working with older adults and empathy in medical students (Intrieri, Kelly, Brown & Castilla, 1993). Similar interventions may be effective with trainees in the field of mental health; however, very little research has been conducted regarding counselor empathy toward older adults, which may be a significant gap in the literature.

Caregivers to older adults with greater self-reported empathy found caregiving to be less stressful and reported greater life satisfaction than caregivers with low empathy (Lee, Brennan, & Daly, 2001). Constantine (2000) found that increased empathy was linked with greater multicultural counseling competence in a group of school counselor trainees. Spanierman et al. (2008) reported that empathy mediated the relationship between multicultural training and multicultural competence in a group of White trainees in counseling. Additionally, therapists who reported the highest levels of color-blindness toward ethnic minority clients also reported greater empathy (Burkard & Knox, 2004).

Greater empathy for outgroup members has also been shown to be related to decreased prejudice toward the outgroup (Stephan & Finlay, 1999). Gutsell and Inzlicht (2010) report that when participants watched videotapes of individuals from a different racial group drinking a glass of water, they experienced lower levels of brain activity and reported less interpersonal sensitivity and empathy toward the videotaped target than when watching a video of a person of the same race. Soble, Spanierman, and Liao (2010) found that White participants who watched a short video related to racial attitudes were more likely to report having greater empathy toward individuals from minority racial groups following this intervention.

Despite the limited research available on the role of empathy in counselor attitudes toward older adult clients, the current literature in this field suggests that this may be a reasonable extension of the research (e.g., Intrieri, Kelly, Brown & Castilla, 1993; Varkey, Chutka, & Lesnick, 2006). Logically, counseling trainees with greater self-reported empathy may be more likely to hold positive attitudes toward outgroup members like older adults and may have greater interest in working with this population. The current study will examine empathy as a predictor of multicultural competence, interest in working with older adults, and attitudes toward senior populations to further understand these links.

**Summary.** Empathy is a variable of central importance in the area of psychotherapy, as greater counselor empathy toward a client is related to improved outcomes in therapy (e.g., Lambert & Dean, 2001). Increased empathy has also been linked with reduced prejudicial attitudes between members of

different races (e.g., Soble et al., 2010; Stephan & Finlay, 1999). Although no studies have focused on empathy toward older adults in counseling trainees, some literature suggests that greater empathy predicts more positive attitudes toward older adults in general (e.g., Lee, Brennan, & Daly, 2001). Further exploration of the relationship of empathy to attitudes toward older adults and interest in working with this population is warranted.

### **Trainee Interest in Working with Older Adults**

Wilensky and Barmack (1966) were the first to examine the interest of students in clinical psychology from training programs in New York City in working with older adult clients. Using an attitudes questionnaire developed for their study to assess the way that trainees perceived working with older adult clients, the authors reported that students held many generally negative attitudes toward working with older adults. Based on their study's results, the authors chose not to pursue creating specific training tracks for geropsychology within their clinical psychology training programs. In the more than 45 years since their study, very little subsequent research has been conducted, however, to assess the attitudes of trainees in mental health toward working with older adult clients.

Wilensky and Barmack (1966) pioneered the area of research on trainee interest in working with older adult clients, but their study was flawed in several ways. The authors used a limited sample of only six training programs in clinical psychology in their research. Thus, their conclusion that specialty training tracks in geropsychology were not needed at the time may not have been applicable to a national sample of training programs. The authors also did not have access to



previously supported measures of attitudes toward aging, such as those that are currently available, and had to develop their own scale for the purpose of their study. Finally, the only variables included in their study were attitudes toward aging and interest in working with older adults. Additional factors may have influenced the variables of interest in their study, such as previous contact with older adult clients.

More research on attitudes toward older adults has emerged in fields outside of psychology in recent years. Several studies have shown that interventions designed to increase nurses' and medical students' knowledge and skill for working with the older adult population are effective in improving attitudes toward senior patients and future interest in working with this group (e.g., Happell & Brooker, 2001; Intrieri, Kelly, Brown & Castilla, 1993; Varkey, Chutka, & Lesnick, 2006). Mason and Sanders (2004) examined the attitudes of social workers toward working with senior populations after completing a fieldwork experience with this population and found that the students increased in their understanding of issues impacting older adults and had a greater interest in working with this population in the future.

Based on the existing literature in this area, it seems that interest in working with the older adult population may be impacted by multiple factors. In particular, direct intervention or in-person experiences may increase trainees' interest in working with older adults (e.g., Mason & Sanders, 2004). The current study seeks to examine the links between contact with older adults, universal diverse orientation, empathy, attitudes toward aging, and trainees' interest in

working with older adult clients. This information will be useful in the future as we address the mental health training of practitioners and their choice to work with the aging population (Nelson, 2005).

**Summary.** Wilensky and Barmack (1966) conducted a study of the level of interest of graduate trainees in working with older adult clients, concluding that interest was generally low and that it was unnecessary to create a specialty for students working in this area. No known studies since this time have examined counseling trainee interest in working with older adult clients. Literature in this area focusing on students within the medical field (e.g., Intrieri, Kelly, Brown & Castilla) and social work trainees (e.g., Mason & Sanders, 2004) suggests that increasing exposure to older adults and issues related to aging may increase interest in working with this population. Additional research is needed in this area that focuses on the interest of graduate trainees in counseling in working with older adult clients.

### **Purpose of the Current Study**

The current study aims to provide some help to counseling training programs in addressing the increasing need for counselors who specialize in working with older adult clients and reassessing student interest in geropsychology. No studies to date have simultaneously examined the variables of interest in the current study, which include contact with older adults, empathy, multicultural competence, universal diverse orientation, attitudes toward older adults, and interest in working with this population. The proposed study will sample a diverse group of counseling trainees across the United States. No

existing studies have collected data related to the dimensions of interest in this study from a national sample of counseling trainees. Additionally, the use of structural equation modeling in the current project will allow for a more complex understanding of the relationships between the variables than has been possible in previous research.

## Chapter III

### Method

#### Participants

The sample for the current study consisted of 266 master's and doctoral level students in the fields of clinical psychology, counseling psychology, marriage and family therapy, and clinical social work. A total of 390 participants initially accessed the survey; however, participants who did not answer any validity items at all ( $n = 80$ ) and those who did not meet the criterion of answering at least 3 out of 4 survey validity items correctly ( $n = 43$ ) were excluded from the final sample. This sample size meets the *a priori* criteria for the proposed structural equation model (see Figure 1) with a minimum number of between 200 (Weston & Gore, 2006) to 245 participants (Hancock, 2006). The majority of participants who completed the survey were female (90%). The sample was 30.38 years of age on average. Of the 266 participants in the final sample, ethnicity was reported as follows: 83% European American, 7% African American, 4% Hispanic, 3% Biracial or Other, 1% Middle Eastern, and less than 1% Asian American or American Indian. Participants also classified their sexual orientation as follows: 93% heterosexual, 4% gay or lesbian, and 3% bisexual.

All participants were currently enrolled in a graduate program. About 57% of the sample reported being in a master's degree program in either clinical/counseling psychology ( $n = 110$ ) or social work ( $n = 42$ ), while about 39% reported being in either a Ph.D. ( $n = 47$ ) or Psy.D. ( $n = 58$ ) doctoral program (approximately 4% reported "Other" for academic program or did not specify).

The majority of participants were in either the first (29%) or second year of study (29%), with fewer participants reporting being in the third year (16%), fourth year (10%), or beyond (13%). Participants reported having worked with an average of 59.26 clients (Table 1) and provided an average of 419.06 hours of individual therapy (Table 2).

The majority of participants identified themselves as being lower middle class (49.6%), with fewer participants reporting being in the working class (26.3%), upper middle class (24.1%) or upper class (1.1%) categories.

Participants also identified their parents' social class as follows: upper middle class (47.7%), lower middle class (33.8%), working class (15.5%), and upper class (3.8%). See Table 1 for parental level of education and Table 2 for annual household income.

## **Measures**

**Demographics.** A short demographic measure included in the survey asked the participants to provide their age, gender, sexual orientation, race, ethnic background, income, socioeconomic status, parental income, parental education, and year of study in graduate school. Additionally, participants were asked to estimate their total number of clinical hours up to the present, the number of individual clients that they have seen, as well as the type of clinical settings that they have worked in. (See Appendix A for the demographic measure.)

**Attitudes toward Older Adults.** Attitudes toward older adults were measured using the following three scales: (1) the Refined Version of the Aging Semantic Differential (ASD; Polizzi, 2003), (2) the Attitudes toward Old Persons

scale (OP; Kogan, 1961), and (3) the Fraboni Scale of Ageism (FSA; Fraboni et al., 1990). The ASD (Polizzi, 2003) is an assessment of attitudes toward older adults using sets of opposite adjectives that participants rate to describe a “typical” older person. The current version contains a total of 24 adjective pair items from the original ASD scale developed by Rosencranz and McNevin (1969). The adjectives are the anchors on a 7-point Likert-scale, with lower scores indicating more positive descriptions and higher scores indicating more negative descriptions. Some sample adjective pairs from the ASD are: “Kind-Cruel,” “Positive-Negative,” “Calm-Agitated,” and “Thoughtful-Thoughtless.” A sum score is obtained by adding the ratings, with lower scores representing more positive evaluations of older adults.

Polizzi (2003) recommends the use of separate ratings of men and women aged 70 to 85 years to allow the results to be further differentiated from the original “old person” descriptions that were used in the original scale. Thus, participants were asked to take the scale twice, with a separate set of directions for describing a typical older male and a typical older female aged 70-85 years. Two sum scores (i.e., for the typical older male and for the typical older female) were included in the model. Polizzi (2002) reports that ratings of older men had a Cronbach’s alpha of .97 and a test-retest reliability of .81; ratings of older women also had a Cronbach’s alpha of .97 and a slightly lower test-retest reliability of .79. In the current sample, Cronbach’s alpha estimates for the ASD were in the highly acceptable range with .93 for the female version and .95 for the male version.

Following the items on the ASD scale, three additional items, shown in Appendix B were asked to clarify the description of the “typical” older adult man or woman that was imagined by the participant when completing the ASD items. First, participants were asked to describe the living situation of the older adult that they imagined by responding to the prompt “Which of the following most closely describes the living situation of the ‘typical’ older adult that you imagined: hospitalized, assisted living, living independently.” Second, participants were asked to answer the following item related to activities of daily living (Katz, 1963), “For the older adult that you imagined, how able was this person to care for themselves by doing things like bathing, dressing themselves, walking, toileting, and feeding?”. Finally, participants responded to the following item concerning instrumental activities of daily living (Lawton & Brody, 1969), “How able was the older adult you imagined to complete activities like using the telephone, shopping by themselves, preparing their own food, taking care of their home, doing laundry, driving, taking medication, and handling finances?”. Participants had three options for each of these items, which will be coded as follows: 2 = older adult in good health, 1 = older adult in somewhat poor health, and 0 = older adult in rather poor health.

The OP scale, developed by Kogan (1961), is a 34-item assessment measuring negative attitudes toward older adults. Each of the items is rated on a 6-point Likert-scale with 1 meaning “strongly disagree” and 6 meaning “strongly agree.” Sixteen of the 34 items on the OP scale are reverse scored (e.g., “Most old people are capable of new adjustments when the situation demands it.”).

Higher scores indicate greater negative attitudes toward older adults. Unlike some of the other attitudinal measures, the OP does not measure positive attitudes toward older adults as a group and only focuses on negative or stereotypical attitudes. Kogan reported that the OP scale was significantly correlated with negative feelings toward minority groups (subscales  $r = .21$  to  $.25$ ) and people living with physical disabilities (subscales  $r = .21$  to  $.33$ ). According to Kogan, odd and even numbered items were shown to have reliability estimates ranging from  $.66$  to  $.85$ . In the current sample, Cronbach's alpha reliability was found to be  $.67$  for the OP scale.

The revised version of the FSA scale was used in the current study (Rupp, Vodanovich, & Credé, 2005). The FSA is one of the few attitudinal measures designed specifically to measure the concept of ageism. Fraboni, Saltstone, and Hughes (1990) originally developed the scale, conceptualizing ageism as antagonism, avoidance of older adults, and discrimination towards older adults as a group. The FSA scale further used Butler's (1969) definition of ageism as a guide to the development of items, as well as Allport's (1958) view of ageism. The revised version of the scale created by Rupp et al. contains 26 of Fraboni et al.'s original 29 items. The items are on a 4-point Likert scale, with 1 meaning "strongly disagree" and 4 meaning "strongly agree." Five items on the revised version of the FSA scale are reverse scored (e.g., "It is sad to hear about the plight of the old in our society these days.").

Fraboni et al.'s (1990) original FSA scale was developed using a sample of 231 participants, approximately half of whom were university students and half



were professionals of various backgrounds (e.g., salesman, mechanics, social workers). The participants were approximately 31.2 years of age on average and had about 14.2 years of education on average. The original findings indicated the scale had a Cronbach's alpha reliability of .86. Divergent validity was demonstrated by Fraboni et al. with negative correlations with the Facts on Aging Scale ( $r = -.28$ ) and the Acceptance of Others Scale ( $r = -.22$ ). Rupp et al. (2005) confirmed the original three-factor structure of the FSA reported by Fabroni et al. with the following factors: Stereotypes ("Many old people are stingy and hoard their money and possessions"), Separation ("I sometimes avoid eye contact with old people when I see them"), and Affective Attitudes ("The company of most old people is enjoyable"). Rupp et al. also report that each of the subscales was significantly correlated with the ASD and OP scales. Cronbach's alpha coefficients of .79, .76, and .70 were reported by Rupp et al. for the Stereotypes, Separation and Affective Attitudes subscales respectively. In the current sample, Cronbach's alpha reliability was .84 for the FSA scale.

**Contact with Older Adults.** Level of contact with adults over the age of 65 was assessed using a modified version of the Yunker and Hurely (1987) Contact with Disabled Persons (CDP) Scale. The original CDP was developed to measure overall contact with persons with disabilities; the modified version (see Appendix C) used in this study replaced the phrase "disabled persons" with "older adults" in each item. The contact scale includes a total of 20 items measured on a 5-point Likert scale, with 1 meaning "never" and 5 meaning "very often," and scores on range from 20 to 100. Additionally, 11 items assessing quality of contact for

specific types of interactions with older adults were created. These quality of contact items are measured on a 3-point scale (negative, neutral, or positive).

The original CDP scale was developed using a sample of 656 participants including nurses, conference attendees, and graduate students in psychology. The CDP scale has been correlated with the Attitudes Toward Disabled Persons (ATDP) scale ( $r = .40$ ). Yuker and Hurley (1987) report split-half reliability coefficient of .93 and median alpha coefficient of .92 for the original CDP scale. The data from the current study will be used to calculate reliability estimates for the modified version of the CDP scale as well as the convergent validity of the scale via its correlation with the OP scale. Reliability for the CDP in the current sample was in the high range, with a Cronbach's alpha coefficient of .90. The modified version of the CDP was also found to significantly negatively correlate with the OP scale in the current sample ( $p < .001$ ,  $r = -.55$ ), showing evidence of divergent validity.

**Interest in working with Older Adults.** Interest in working with older adults was assessed with six self-report items modeled from the items included on Qualls et al.'s (2002) survey, which assessed interest in working with older adults in a group of practicing psychologists. Using a 7-point Likert type scale, with one indicating "strongly agree" and seven indicating "strongly disagree," participants were asked to respond to the following six self-report items: (1) "I am interested in issues related to aging and older adulthood.", (2) "I would like to get more graduate training on issues related to working with clients over the age of 65.", (3) "I would like to have counseling clients over the age of 65 during my practicum

or internship experiences.”, (4) “I plan to work with at least some adults over the age of 65 after I receive my degree.”, (5) “I plan to specialize in working with clients over the age of 65.”, and (6) “I plan to receive continuing education on working with clients over the age of 65 after I receive my degree.” Responses to the six items are summed to create a total score with possible values ranging from 1 to 42. Cronbach’s alpha reliability for the interest items was .91 for the current sample.

**Empathy.** Empathy was measured using the Interpersonal Reactivity Scale (IRI) developed by Davis (1980). The IRI includes 28 self-report items. The IRI has four subscales according to Davis’ original work: (1) Perspective Taking (the ability to understand the perspective of another person), (2) Empathic Concern (the experience of warm or compassionate thoughts toward another person), (3) Fantasy (being able to take on the feelings of characters in movies or books), and (4) Personal Distress (one’s feelings of distress upon hearing the experiences of another person). A total of nine items on the IRI scale are reverse scored (e.g., “When I see someone get hurt, I tend to remain calm.”).

The IRI has been shown to be significantly correlated with social functioning, self-esteem, emotionality, and sensitivity to others. According to Davis (1980), internal reliabilities for each of the subscales range from .71 to .77, while the test-retest reliabilities range from .62 to .71. Cronbach’s alpha reliability estimates for the current sample were as follows: .75 for the Fantasy Scale, .71 for the Empathic Concern Scale, .69 for the Perspective Taking Scale, and .78 for the Personal Distress Scale.

**Multicultural Competence.** The Munroe Multicultural Attitude Scale Questionnaire (MASQUE; Munroe & Pearson, 2006) was used to measure multicultural competence. The MASQUE includes a total of 18 items, with each item scored on a 6-point Likert scale, with 1 meaning “strongly disagree” and 6 meaning “strongly agree.” Five reverse scored items are included on the scale (e.g., “I do not understand why people of other cultures act differently.”) The MASQUE has three subscales: (1) Know, (2) Care, and (3) Act. The Know subscale includes a total of seven items assessing cognitive understanding of multicultural issues (e.g., “I know that gender based inequities exist”). The Care subscale is made up of six items measuring empathy or overall sensitivity to multicultural issues (e.g., “I am sensitive toward people of every financial status.”). The Act subscale includes five items measuring reactions to multicultural issues (e.g., “I do not take action when witnessing bias based on people’s preferred sexual orientation.”). According to Munroe and Pearson, Cronbach’s alpha coefficient of .80 was found for the MASQUE total score. Cronbach’s alpha coefficients for each of the subscales were as follows: .70 Know, .70 Care, .58 Act. Divergent validity for the MASQUE has been shown with the Marlowe-Crowne Social Desirability Scale. In the current study, Cronbach’s alpha reliability estimates were calculated for each of the following subscales: .78 Know, .43 Care, and .60 Act.

**Universal Diverse Orientation.** UDO includes thought processes, behaviors, and emotional connection with individuals from diverse groups (Fuertes, Miville, Mohr, Sedlacek, & Gretchen, 2000). The Miville-Guzman

Universality-Diversity Scale-Short (M-GUDS-S; Fuertes et al., 2000) was used to measure UDO. The M-GUDS-S is comprised of 15 self-report items on a 6-point Likert scale with 1 meaning “strongly disagree” and 6 meaning “strongly agree.” A total of four items on the M-GUDS-S are reverse scored (e.g., “I am only at ease with people of my race.”). The items on the M-GUDS-S were taken from the full M-GUDS scale (Miville et al. 1999), which consisted of 45 total items. Miville et al. (2000) report that the M-GUDS full scale is significantly correlated in a positive direction with measures of racial identity, empathy, healthy narcissism, feminism, and androgyny. Additionally, significant negative correlations were found with homophobia and dogmatism measures.

The M-GUDS-S has been shown to have a three-factor structure (Fuertes et al., 2000): Diversity of Contact (Items 1, 4, 7, 10, 13; “I am interested in knowing people who speak more than one language”), Relativistic Appreciation (Items 2, 5, 8, 11, and 14; “It’s often hard to find things in common with people from another generation”), and Comfort with Differences (Items 3, 6, 9, 12, 15; “I am comfortable getting to know people from different countries”). The current study conceptualizes UDO as a latent variable, utilizing the three-factor structure of the M-GUDS as multiple indicators of this construct. Reliability for the M-GUDS full scale has been shown to range from .89 to .95. Reliability estimates for the M-GUDS-S form used in the current study range from .77 (Fuertes et al., 2000) to .95 (Adams, 2009) for the total score. Fuertes et al. additionally report reliabilities of .82 for the Diversity of Contact subscale, .59 for Relativistic Appreciation, and .92 for Comfort with Differences. Cronbach’s alpha reliability

coefficients were as follows in the current sample for the UDO scale: Total Score .72, Diversity of Contact .72, Relativistic Appreciation .69, and Comfort with Differences .63.

**Social Desirability.** The Marlowe-Crowne Social Desirability Scale Form C (MCSD-C; Crowne & Marlowe, 1960; Reynolds, 1982) will be used to assess the tendency for participants to respond in a socially desirable, or less than honest, way. The MCSD-C includes 13 items to which the participant responds either “true” or “false”. Scores on the MCSD-C range from 0 to 13. Item numbers 5, 9, 10, 11, and 12 are reversed scored. Higher scores on the MCSD-C indicate that the participant endorsed a greater number of socially desirable responses. According to Reynolds (1982), the MCSD-C has been shown to have a reliability estimate of .76. According to Reynolds, validity has been demonstrated for the MCSD-C with a positive correlation to the Edwards Social Desirability Scale. In contrast to prior values reported, Cronbach’s alpha reliability in the current sample was in the low range with a value of .20.

**Validity Items.** To protect against random responding, four validity items were interspersed throughout the survey. Participants responded to items such as “Please respond with number 4 now.” Only those participants who responded correctly to at least three out of the four items were included in the final sample. As noted previously, approximately 32% ( $n = 123$ ) of those who initially accessed the survey were removed as they did not meet this criterion with 80 participants (21%) not answering any validity items at all and 43 participants (11%) not answering at least 3 out of 4 survey validity items correctly.

## **Procedure**

The sample was obtained via e-mail solicitation of training directors and program coordinators in clinical psychology, counseling psychology, marriage and family therapy, and social work programs. Program directors were asked to forward an e-mail message containing the link to the online survey to students in their respective programs. Participants who followed the e-mail link were taken to the Survey Monkey website to complete the survey. The first page of the survey served as an informed consent form, explaining eligibility requirements, the study purpose, participant rights, and how to contact the researcher. Those participants who chose to complete the survey were informed that every 50<sup>th</sup> participant would receive one of up to four \$25 iTunes gift cards. Of the 266 participants that completed the survey, 189 (71%) chose to enter their e-mail address and three iTunes giftcards were distributed. Each of the three winners were notified via e-mail. The measures were presented to participants in the following order: demographic measure, ASD, Contact scale, interest items, Kogan scale, M-GUDS-S, FSA, MASQUE, IRI, and the MCSD-C. A validity item was included after each of the following four measures: the ASD scale, the Kogan scale, the MGUD-S, and the IRI.

E-mail solicitations were sent to 632 programs --- 229 programs in clinical psychology, 67 programs in counseling psychology, 227 programs accredited by the Council for Accreditation of Counseling and Related Educational Programs, 78 programs in marriage and family therapy, and 31 programs in clinical social work. A total of 14 programs confirmed that the e-mail solicitation had been sent

to their students. An additional e-mail, requesting information on the approximate number of students who had received the study solicitation, was also sent to all programs. A total of 50 programs responded with estimates of how many students were reached by the e-mail advertisement. Based on the estimates provided by programs, at least 3,711 students were reached by the study e-mail, suggesting that roughly 7% of eligible students responded to the survey.

### **Pilot Study**

A pilot study was conducted in November 2010 with two main purposes. First, this study included a large number of measures in order to facilitate the use of structural equation modeling; thus, the time commitment by participants needed to be assessed. Second, little previous literature had examined the intervariable relationships in the current research project in a sample of counseling trainees. Sutton, Caskie, and Berkowitz (2011) found that completion of all of the measures included on the survey took participants an average of 22.55 minutes ( $n = 22$ ). Of the 25 total participants who initially accessed the study, 1 dropped out after completing the demographics measure, and 2 more participants dropped out after finishing the first two scales, the ASD, and contact measures. A total of 88% of the participants who accessed the survey completed it in full.

Sutton et al. (2011) found significant correlations between many of the variables of interest in the current research project. Greater interest in working with older adults was significantly correlated with increased contact with this age group ( $r = .540, p = .006$ ), fewer negative attitudes toward older adults ( $r = -.454,$



$p = .034$ ), greater universal diverse orientation ( $r = .548, p = .010$ ), and increased empathy ( $r = .466, p = .038$ ). Increased contact was significantly correlated with greater positive evaluations of older adults ( $r = .490, p = .015$ ) and reduced ageism ( $r = -.512, p = .021$ ). Higher levels of empathy were linked with greater UDO ( $r = .662, p = .001$ ), reduced ageism ( $r = -.476, p = .034$ ) and increased multicultural attitudes ( $r = .482, p = .031$ ).

### **Data Analysis**

Structural equation modeling (SEM) was used to analyze the data in the current study. The analysis was conducted using Amos 18.0 software (Arbuckle, 2009). According to Fassinger (1987), SEM allows for the simultaneous testing of multiple hypotheses as well as the examination of more complex systems of equations than those allowed by multivariate linear multiple regression. Additionally, latent variables, or unobserved constructs, can be specified within the SEM framework with multiple indicators. Given these advantages, SEM was chosen for the current analysis to test the complex relationships between variables in the hypothesized model shown in Figure 1.

The exogenous side of the model included latent variables for Universal Diverse Orientation and Contact. Parceling was used to create multiple indicators for the Contact latent variable using the items from the Contact with Older Adults measure (Hall, Snell & Foust, 1999). Using the item to construct balance method outlined by Little, Cunningham, Shahar, and Widaham (2002), four parcels were created for the latent variable of Contact using the following process: (1) specify and estimate a one-factor structural equation model with the scale items as the

indicators, (2) assign the items with the highest estimated loadings to each of the four parcels (i.e., the highest loaded item is assigned to parcel 1, the next highest item to parcel 2, etc.), (3) assign the four next highest loaded items in the opposite order starting with the parcel that had been previously assigned the lowest loaded item from the previous set (i.e., the highest loaded item of this second set of 4 is assigned to parcel 4), and (4) repeat this procedure until all of the scale items are assigned to a parcel.

The latent construct Universal Diverse Orientation used the three subscales from the M-GUDS-S scale as the multiple indicators. On the endogenous side of the model, Empathy, Multicultural Competence, and Attitudes Toward Older Adults were specified as latent constructs, while interest in working with older adults was operationalized as a single indicator variable. Empathy utilized four indicator variables --- the four subscales from the IRI. The three subscales of the MASQUE were used as multiple indicators of multicultural competence. Attitudes toward older adults were measured using total scores from the ASD, the OP, and the FSA scales. The ASD included two total scores, one for male and one for female older adult targets. Error terms for these two total scores were correlated.

The fit of the model was determined using several indices. First, the chi-square test was used to indicate model fit. Several additional fit indices were used to determine model fit, including: the Tucker-Lewis index (*TLI*), the comparative fit index (*CFI*) and the root mean square error of approximation (*RMSEA*). The following criteria were used to indicate a well-fitting model: a non-significant chi-

square test, *TLI* and *CFI* greater than or equal to .95, and *RMSEA* less than or equal to .05 (Bentler & Bonett, 1980; Schumacker & Lomax, 2004).

In addition to the full model shown in Figure 1, Figure 2 depicts a reduced model in which three paths are removed from the original model. Specifically, the paths from empathy to multicultural competence, multicultural competence to attitudes about older adults, and empathy to interest in working with older adults were removed in the comparison model, as the relationships between these variables have been explored very little in the existing literature. Given that this reduced model is nested within the full model, a model comparison was made using the chi-square difference test to determine whether removal of these paths from the model significantly changes model fit.

To account for missing item-level data, a criterion was selected *a priori* that participant data for any partially completed scale would be dropped if more than 25% of the items for that scale were missing. However, no participants in the final sample were missing more than 25% of items for any scale that was at least partially completed. Fourteen participants did not complete an entire scale and, as a result, had a missing value for the score calculated for that scale. In contrast, for participants meeting the criterion on a partially completed scale, the scores for that scale were calculated by prorating the total score by the number of non-missing items on the scale to account for missing items.

The full information maximum likelihood (FIML) estimation method, which can estimate model parameters under the statistical assumption that any missing data values are missing at random, was used in the SEM analysis (Enders

& Bandalos, 2001). This estimation allows all participants who have provided data at the minimum criterion level per scale to be included in the analysis, rather than deleting participants who have completed some but not all measures. Thus, the entire sample of 266 was used for the initial estimation of the models. However, modification indices (MIs), which are used to provide a guide toward model modification, can only be obtained with complete datasets. Thus, to obtain the MIs, a subsample of 252 representing only the participants who had complete data in the full sample was used to generate possible modifications for the full sample's model. Subsequent to any modifications, the chi-square difference test was calculated to determine if the model modifications significantly changed the fit of the model.

## Chapter IV

### Results

#### Descriptive Statistics

Descriptive statistics for the variables of interest in the current study are shown in Table 5. Examination of descriptive statistics for the sample showed that the variables were generally normally distributed. Only the Know subscale from the MASQUE had skewness (-2.22) and kurtosis (6.43) values outside of the expected ranges (-2 to +2; Lomax, 2001), however, kurtosis estimates for this subscale did meet the more liberal criteria suggested by West, Finch, and Curran (1995) of -7 to +7 for kurtosis. Because the Know subscale of the MASQUE was only slightly outside of the range of normal distribution, thus, no transformations were made to this variable.

Responses for descriptions of the “typical older adult” imagined for the FSA scale measure indicated that the large majority of participants said that the elder they had imagined was living independently (78.6%), while fewer said that they had imagined an elder who was in an assisted living situation (20.3%) or who was hospitalized (1.1%). When completing daily activities like bathing, dressing or walking, most participants reported that they imagined an older adult who was “very able to care for themselves” (58.6%), while fewer participants endorsed imagining someone who “needs some assistance” (38%), and a small number said that the elder they had pictured was “quite unable to care for themselves” (3.4%). When asked about instrumental activities of daily living like preparing food and handling finances, most participants said that the older adult they imagined “needs some assistance” (53.8%), while a large group said the

elder they imagined “was able to complete all these activities themselves” (44.4%), and few participants said that the senior they thought of was “not able to complete these activities alone” (1.5%). See Appendix E for descriptions of imagined older adults tabled by the participants’ ethnicity and gender.

Table 6 shows the percentage of responses for the descriptions of types of contact with older adults on the contact scale. Based upon the responses of participants, it appears that the majority described their contact with older adults as being mainly positive in nature, with very few participants describing negative interactions.

### **Contact Variable Parceling**

Four parcels were created for the Contact scale using the process detailed by Little et al. (2002) and described previously in Chapter III. First, a single construct model was estimated with the 20 scale items specified as the indicator variables of a single underlying factor ( $\chi^2(170) = 915.05$ ,  $TLI = .64$ ,  $CFI = .71$ ,  $RMSEA = .13$ ). See Table 7 for standardized regression estimates for the items from this model. Item 14 was not significantly related to the latent construct; however, all other regression weights on the relevant latent construct were significant. Standardized regression weights for the items ranged from .07 to .78. The four highest loaded items (i.e., items 1, 19, 5, and 13) were initially assigned, in that order, to the four parcels. The next four highest loadings (i.e., for items 3, 15, 18, and 6) were assigned, beginning with the fourth parcel that had been previously assigned the lowest loaded item from the first set. This procedure was repeated until all of the scale items were assigned to a parcel.

## Bivariate Correlations

The bivariate correlations for the variables included in the structural equation model (shown in Table 8) generally showed the expected patterns, with some exceptions. Results for each of the contact parcels showed that greater contact was significantly correlated with increased interest in working with older adults and fewer negative attitudes toward this group as measured by the ASDF, the ASDM, the FSA and the OP scales (all  $ps < .001$ ).

Each of the UDO subscales were significantly correlated with the subscales of the MASQUE, suggesting that greater openness to new experiences was related to increased self-rated multicultural attitudes. The UDO subscales were not significantly related to attitudes toward older adults. The realistic appreciation subscale of UDO was significantly positively linked with the empathic concern ( $p = .004$ ), fantasy ( $p = .04$ ), and perspective taking ( $p = .008$ ) subscales of the IRI. The diversity of contact subscale of UDO was significantly positively related to the IRI perspective taking ( $p = .008$ ) and personal distress subscales ( $p = .02$ ), and the comfort with differences UDO subscale was also related to these two IRI measures ( $p = .02$  and  $p < .001$  respectively). These results suggest that greater diverse contact with others and comfort with the differences between people was related to increased greater perspective taking and increased personal distress.

The empathic concern subscale of the IRI was significantly correlated with the Act, Know (both  $ps < .001$ ), and Care ( $p = .003$ ) subscales of the MASQUE, suggesting that greater empathic concern was linked with increased

multicultural attitudes. The personal distress subscale of the IRI was significantly related to each of the MASQUE subscales (all  $ps < .001$ ), with greater personal distress being related to decreased multicultural attitudes. The perspective taking subscale of the IRI was significantly linked with the Act ( $p = .002$ ), Know, and Care (both  $ps < .001$ ) subscales of the MASQUE, with greater ability to take the perspectives of others being related to increased multicultural attitudes. The fantasy subscale of the IRI was not significantly related to the subscales of the MASQUE.

The Know, Care, and Act subscales of the MASQUE were significantly related to scores on the FSA and OP scales ( $p < .001$ ), suggesting that increased multicultural attitudes were predictive of fewer ageist beliefs. No significant relationships between the subscales of the MASQUE of the ASDF and ASDM scales were found, however. Interest in working with older adults was significantly related with each of the FSA, OP, ASDF, and ASDM scales (all  $ps < .001$ ), suggesting that greater interest in working with seniors was related to fewer negative attitudes toward older adults.

Correlations between each of the study variables and the MCSD-C were also examined to determine the influence of socially desirable responses. The MCSD-C was significantly correlated with parcels 2 ( $r = .21, p = .001$ ) and 3 ( $r = .15, p = .02$ ) of the contact scale, with greater contact predicting increased desirable responding. The MCSD-C was also significantly correlated with increased interest in working with older adults ( $r = .16, p = .01$ ), greater empathic concern ( $r = .19, p = .002$ ), and increased multicultural action ( $r = .21, p = .001$ ).



Significant negative correlations were also found between the MCSD-C and the OP scale ( $r = -.21, p = .01$ ), the FSA scale ( $r = -.27, p = .01$ ), and the personal distress ( $r = -.13, p = .04$ ) and fantasy subscales ( $r = -.16, p = .009$ ) of the IRI. Thus, participants who reported more socially desirable responses were more likely to report having had more contact with seniors, having a greater interest in working with the older adult population, being more empathetic toward other people, and having greater multicultural competence; they were also less likely to report negative attitudes towards older adults as measured by the OP and FSA scales, and lower levels of empathic personal distress and fantasy. Given the several significant associations between the MCSD-C and the variables of interest in this study, it was decided that a post hoc analysis of the most acceptable model, in which MCSD-C was included as a control variable, would be conducted.

### **Model Analysis**

First, both the full model and the reduced model were estimated. The fit statistics for the full model ( $\chi^2(140) = 270.14, p < .001, TLI = .89, CFI = .92, RMSEA = .06$ ) did not meet the criteria for good fit that were specified *a priori* --- specifically, a non-significant chi-square test and values of .95 or greater for *TLI* and *CFI* and .05 or less for *RMSEA* (see Table 9 for model fit indices). However, the *CFI* value did meet the less stringent criteria set forth by Weston and Gore (2006), who recommend a cut-off value of .90 or greater for the *CFI* when the sample size is below 500 and when the model is not overly complex in nature. In addition, the model also meets the similarly more liberal *RMSEA* standards of

Browne and Cudeck (1993), who suggested that values in the range of .06 to .08 indicate acceptable fit to the data.

The reduced version of the hypothesized model that was proposed, in which the paths from empathy to multicultural competence, multicultural competence to attitudes toward older adults, and empathy to interest in working with older adults were removed, did not converge, and results could not be obtained under this model specification. Thus, the full model was utilized as the base model in all further analyses. See Tables 10 and 11 for standardized path estimates for the full model. However, because the full model as specified *a priori* only approached criteria for good fit to the data, but did not fully meet the more stringent model fit criteria, model modification indices were generated and examined in order to determine whether or not model fit could be improved.

### **Modification Indices Analysis**

In order to obtain model modification indices, an additional analysis was conducted in which the 14 participants in the sample who had missing data were removed, creating a complete dataset of 252 participants. Several correlated residuals were suggested by the modification indices (see Table 12). Only the correlation suggested between the error term for the empathic concern subscale of the IRI and the error term for the personal distress subscale of the IRI had any empirical or theoretical support. According to Davis (1980), both the empathic concern and personal distress components of the IRI were designed to measure the affective components of empathy, with the empathic concern scale measuring emotional reactions like warmth and compassion while the personal distress scale

measures personal feelings of discomfort and anxiety. When substantial overlap exists in the method of measurement between two indicators of a latent construct, it is appropriate to specify correlated error terms (Quintana & Maxwell, 1999). An examination of the items on each of these scales demonstrates a great deal of overlap in the method of measurement for an individual's affective responses. The remaining modification indices represented additional regression paths; however, none of these paths appeared to have an empirical basis (see Table 13).

### **Modified Model Results**

A modified model was estimated, in which the correlation between the error term for the empathic concern subscale and the error term for the personal distress subscale of the IRI was added (see Figure 3 for a visual representation of the modified model). As shown in Table 9, the chi square test was significant for the modified model, although the *TLI* of .91 and *CFI* of .94 were within the acceptable .90 range, and the *RMSEA* of .05 met the criterion value specified *a priori*. The chi-square difference test ( $\Delta\chi^2(1) = 25.95, p < .001$ ) indicated that adding the correlated error term between empathic concern and personal distress resulted in significantly better model fit relative to the full model. Thus, it was determined that the modified model was the best overall fit to the data. See Tables 14 and 15 as well as Figure 3 for standardized path estimates from the modified model.

### **Post Hoc Analysis Including Social Desirability Control**

The MCSD-C was included in the modified model as a predictor of empathy, attitudes toward older adults, interest in working with this population,

and multicultural competence, in order to control for the impact of this variable on the relationships found in the full model. Results for the modified version of the model including the MCSD-C showed slightly decreased model fit; however, the *TLI*, *CFI*, and *RMSEA* all met the less stringent criteria for acceptable fit ( $\chi^2(152) = 274.97$ , *TLI* = .90, *CFI* = .93, *RMSEA* = .06). The addition of control variables with smaller sample sizes can result in reduced model fit, as the addition of controls creates the need for a larger sample than that suggested by initial power analysis (Becker, 2005).

Path estimates indicated no significant relationship between the MCSD-C and empathy, interest, attitudes or multicultural competence. The covariance between contact and the MCSD-C was significant ( $\beta = .16$ ,  $p = .016$ ), however, the covariance between the MCSD-C and UDO was non-significant. Significant relationships remained between UDO and empathy ( $\beta = -.59$ ,  $p < .001$ ), multicultural competence and empathy ( $\beta = -.56$ ,  $p = .01$ ), contact and attitudes toward older adults ( $\beta = -.35$ ,  $p < .001$ ), and contact and interest in working with older adults ( $\beta = .23$ ,  $p < .001$ ).

Given the very similar pattern of results obtained when controlling for the MCSD-C to those presented in Tables 14 and 15 for the modified model, it was assumed that the modified model as a whole was not substantially impacted by socially desirable responding.

## Chapter V

### Discussion

#### Summary of Findings

The current study used structural equation modeling to examine a complex hypothesized model (see Figure 1) of the relationships among trainees' attitudes toward older adults, interest in working with older adults, contact with older adults, multicultural competence, UDO, and empathy. Although a reduced version of the proposed model (see Figure 2) did not converge and was not interpretable, the full version of this hypothesized model approached good fit to the data. To improve the fit of the model, one modification was made to the full model, in which a correlated error was added between the empathic concern and personal distress subscales of the IRI. This modified model provided the best overall fit to the data and met more liberal criteria for model fit set forth in the literature (e.g., Browne & Cudeck, 1993; Weston & Gore, 1996), but did not meet the most stringent criteria for model fit. Given that the sample size used in the current analysis included fewer than 500 participants and the model tested was not overly complex, however, it was determined that the modified model represents an acceptable fit to the data (Weston & Gore, 2006).

Path estimates from the modified model provide some insight into the hypothesized relationships between the variables of interest in the current study. First, as expected, increased contact was a significant predictor of more positive attitudes toward older adults and greater interest in working with this population. Second, the hypothesis that greater empathy would predict increased multicultural

counseling competence was supported; however, contrary to expectations, empathy was not a significant predictor of negative attitudes toward seniors or interest in working with this population. Similarly, the third hypothesis was only partially supported, with increased UDO found to be a significant predictor of greater empathy; however, greater UDO was not found to be significantly related to increased multicultural counseling competence, more positive attitudes about older adults, or greater interest in working with older adults as was previously predicted. The fourth hypothesis, that greater multicultural competence would predict more positive attitudes about elders, was not supported in the current study. However, as predicted by the fifth hypothesis, more positive attitudes toward older adults were found to significantly predict increased interest in working with seniors.

#### **Contact as a Predictor of Attitudes Toward Older Adults and Interest in Working With Older Adults**

A major finding of the current study is that increased contact with seniors may be an important predictor of counseling students' overall attitudes toward, and interest in working with, older adult clients. As in previous research on the interactions of younger and older adults (Harwood et al., 2005), contact with the older adult population was significantly related to both fewer negative attitudes toward seniors and greater interest in working with this group. In fact, contact with older adults was found to be the only significant predictor of the main outcomes variables of interest in the present study, attitudes towards older adults and interest in working with this population. These findings point to important

implications for training programs in counseling, as contact may be one of the most changeable aspects of a student's graduate training experiences.

These results also reiterate the importance of contact as previously shown in the literature on altering ageist attitudes (Mason & Sanders, 2004). It is possible that this relationship functions in a similar manner to previous research on majority group contact with members of minority groups and subsequent attitude change (Caspi, 1984; Spanierman, Neville, Liao, Hammer, & Wang, 2008) suggested by the contact hypothesis (Allport, 1954). As the outgroup member engages in contact with the minority group, perceived stereotypes about the minority group begin to decrease. Following this contact, increased positive attitudes and fewer stereotypes may result (Hewstone & Brown, 1986).

### **Attitudes Toward Older Adults as a Predictor of Interest in Working With Older Adults**

More positive attitudes toward older adults were found to significantly predict increased interest in working with seniors, as was previously hypothesized. Little research has focused specifically on the connection between existing attitudes toward older adults and interest in working with this population. Several studies have shown that educational interventions designed to increase student knowledge related to working with the older adult population and decrease pre-existing stereotypes have resulted in increased interest in working with the older adult age group, however (e.g., Happell & Brooker, 2001; Varkey, Chutka, & Lesnick, 2006). Thus, it is important that mental health practitioners work toward changing their existing stereotypes and negative attitudes toward the

senior population, in order to increase their overall level of interest in working with older adult clients. Increased interest in working with older adult clients is likely to result in a greater number of mental health professionals who have, or are willing to have, older adult clients on their case loads or choose to specialize in working with this age group. Given the projected growth in the older adult population in the next decade and the resulting increase in the number of older adults in need of psychological services (Halpain et al., 1999; Qualls et al., 2002), expanding the number of mental health professionals who are interested and prepared to work with these clients is essential.

### **Empathy as a Predictor of Multicultural Competence**

As hypothesized, greater empathy was found to be related to increased multicultural competence. This finding is similar to existing literature in the field of counseling that has linked increased empathy and greater multicultural competence in graduate students in counseling (Constantine, 2000). Some past research has also shown that greater empathy for outgroup members may be related to decreased prejudice toward the outgroup (Stephan & Finlay, 1999). This finding supports the importance of continuing to enhance overall empathy in counseling training, in order to strengthen multicultural counseling competence in trainees. Increasing counselor empathy and multicultural competency is likely to result in improved counseling outcomes (Sue, 1998).

### **UDO as a Predictor of Empathy**

Greater UDO was a significant predictor of increased empathy, as was originally hypothesized. This finding is consistent with previous research



conducted with graduate students in counseling (Miville, Carlozzi, Gushue, Schara & Ueda, 2006). Empathy has been shown to be an important predictor of outcomes in counseling across multiple research studies on psychotherapy (e.g., Lambert & Dean, 2001; Norcross & Wampold, 2011). Thus, this finding suggests that increased UDO may be an important quality in counseling trainees, as it is predictive of greater empathy within this group.

### **Implications for Training of Counselors**

The current research study has important implications for the training of students in the field of counseling. Training programs may seek to enhance the amount of contact that students have with older adults by increasing the availability of experiences such as practicum training or volunteer work with this age group. Increasing field experiences with older adults has been shown to have a positive impact on attitudes toward older adults in both pastoral counseling students (Heyman et al., 2005) and social work trainees (Mason & Sanders, 2004).

It is also possible that increasing classroom experiences focused on older adults, such as in class discussions of older adult issues or utilizing older adult speakers, may be helpful in altering negative attitudes. Creating classroom experiences related to older adults has been shown to be an effective way of increasing positive attitudes in both medical students (Wilson & Hafferty, 1980) and undergraduates (Ragan & Bowen, 2001), and it seems likely that such techniques would be useful with counseling trainees as well. Thus, counseling training programs might want to consider adding specific courses or specialty

tracks that are focused on geropsychology, as has been previously suggested in the literature (Qualls et al., 2002).

Increasing graduate education related to working with older adults and fieldwork opportunities to interact with this age group when training new counselors may open the doors to more students becoming interested in specializing in working with the senior population after they graduate. Additionally, students who choose to become general practitioners of counseling may feel more comfortable in increasing the number of older adult clients on their caseloads. These changes are likely to be helpful in alleviating the potential discrepancy in coming years between number of graduates in counseling who choose to work with older adults and numbers of seniors in need of mental health care (Knickman & Snell, 2002).

#### *Study Limitations*

The current study has several important limitations that should be considered. First, this study utilized a model modification strategy to produce a model that represented good fit to the data. Model modification procedures should be viewed with some caution, however, as there is a danger of modifications being used to create data driven, rather than theory driven, models (Weston & Gore, 2006).

The addition of the correlated error term from the empathic concern subscale to the personal distress subscale of the IRI appeared to have empirical support, as both of these measures tap into affective responses and utilize similar measurement strategies (Davis, 1980). The use of correlated error terms has been

cautioned and greatly debated in past literature (e.g. Tomarken & Waller, 2003). According to Cole, Ciesla, and Steiger (2007), however, equal danger can exist in not including error terms that are appropriate due to similarities in the method of measurement that has been used. Cole et al. argue that failing to include appropriate correlated residuals can result in misleading results when examining latent variables, as latent variables may be estimated in a method specific manner rather than a method free one. Additionally, Cole et al. suggest that all correlations between residual error terms that make empirical sense should be included in the analysis. Given that model modification indices were used to guide the decision to include the correlated error from empathic concern to personal distress, it will be important that the current model be replicated in the future in order to either confirm or disconfirm the current findings.

Despite concerns in the literature about the use of model modifications, especially those that appear to be completely data-driven, only one modification that was deemed to have a theoretical basis was included in the present analysis, which is a strength of the current study. Additionally, although the chi square test and the *TLI* did not fully meet the criteria chosen *a priori* for a well-fitting model, other indicators, such as the *CFI* and *RMSEA*, showed that the full model fit the data well. Given the promise for good fit shown by the full model, as well as the similar findings between the full model and the modified model, concerns related to the use of model modifications in the current sample are minimal.

A second potential limitation is that the present study used internet data collection as the only means of collecting information. The response rate was

relatively low for the current survey based upon estimates provided by programs; however, lower response rates are typical of internet data collection (Kongsved, Basnov, Hjollund, & Holm-Christensen, 2007). Additionally, it was not possible to verify that the number of students who were estimated to be reached by the e-mail solicitation actually received the e-mail. For example, some program directors who received the request may not have forwarded it, or students may have deleted the e-mail before reading more about the study. Thus, the estimated response rate, while low, is likely a highly conservative estimate, and the percentage of students who received the email and subsequently responded would likely be higher.

In a meta-analysis of the literature on e-mail survey use, Sheehan (2006) found that response rates have decreased with internet data collection in recent years, with higher response rates occurring in the early years of internet data collection. This decline may be due to over-saturation of e-mail solicitations for potential participants, which may be especially true of graduate student populations. According to Sheehan, increased length of online surveys was also a significant predictor of lower response rates, which may have impacted the current study, as it was estimated that the study measures took about thirty to forty minutes to complete. Sheehan also reports that higher response rates were related to greater number of times that members of the survey population were contacted by the researcher. The current study's e-mail solicitation being sent to each program only once, with no follow-up e-mails sent, may have decreased the response rate.

Although internet data collection has been shown to yield fairly similar results to in person surveys (Stanton, 1998; Yun & Trumbo, 2006), it is possible that taking the survey online may have altered participant responses. For example, the Survey Monkey website used to collect data in the current study does not limit the amount of time that users have to complete the measures. Thus, participants may have taken extended time to complete the measures, such as several hours or even days, which may have influenced survey responses in comparison to volunteering in person to complete the survey.

Despite the limitations associated with internet based research, according to Schleyer and Forrest (2000), the ease of creating web-based surveys and the enhanced ability to access particular populations outweigh the problems associated with this form of data collection. These authors analyzed the results of a web-based survey in comparison to a paper-and-pencil version mailed to participants, finding that it was 38% less expensive to conduct a web-based survey, and the results of the two surveys did not show significant differences. Schleyer and Forest also report that participants using the web-based survey completed more items than those completing a paper-and-pencil version. Given that it would be difficult to obtain mailing addresses for the national sample of counseling trainees used in the current study, the use of e-mail solicitations to training programs presented an answer to this dilemma. Future research on the current topic is still needed, however, to compare the use of both online and in-person surveys for trainees in the field of counseling.

The current research study utilized four validity items to protect the survey from participants who may have been randomly responding, an approach to protect from participant misbehavior in internet research suggested by Nosek and Banaji (2002). Specifically, four items requesting that participants check a specific box at various points in the survey were included. Given the absence of an experimenter being able to monitor the responses that are provided by participants in internet research, Nosek and Banaji suggest that the likelihood for participant deception may increase. One approach to protecting from this problem is to provide items with a specific correct response in order to ensure that participants are engaged in internet survey material.

In the current study, a large number of participants ( $n = 80$ ) did not answer any of the validity items and were subsequently dropped from the analysis. These participants likely accessed the survey, but did not provide any responses after determining the amount of effort that participation was likely to take. A smaller number of participants ( $n = 43$ ) did not answer at least 3 out of the 4 validity items included on the survey correctly. The behavior of this group of participants is more difficult to determine, as some may have engaged in random responding, while others may not have given adequate attention to the survey items while they were responding, or have missed the validity items for other unknown reasons. Nosek and Banaji (2002) report that participants may be more deceptive in internet versus laboratory research, as internet research provides fewer social cues and less personal responsibility for participant responses. Although the concern that some participants who accessed the study

may have engaged in random responding remains, excluding this group of participants ensured that the data analyzed in the current study reflects only those participants who were fully attending to the material that was included on the survey.

No existing literature has examined the number of validity items that should be used in internet based research surveys based on the length of the survey. The current research study included four validity items; however, it is possible that additional validity items may have further protected from random responding. No known standardized scale for validity in internet research has been developed, and future research is needed in order to develop a standardized scale for the protection from random responding. Other approaches suggested by Nosek and Banaji (2002) to ensure the validity of internet based responses include repeating items that are specific to the individual (e.g., stating one's birthday or occupation multiple times), requiring individual identifying information (e.g., a driver's license number), or allowing participants to correct their responses by being able to check them a second time before their final responses are submitted. Future research should employ additional strategies to protect from random responding or other participant misbehavior when collecting data via the internet.

Third, several exploratory paths in the modified version of the proposed model were non-significant. The paths from empathy to attitudes toward older adults and interest in working with this population were both non-significant. Previous research had not examined the relationship between empathy and attitudes toward older adults or interest in working with this population. Past

literature had shown links between empathy and attitudes toward other minority groups, however (e.g., Stephan & Finlay, 1999). Thus, the link between empathy and the outcome variables in the current study seemed to be a reasonable extension of prior research. Although it is possible that empathy might not be related to attitudes about older adults, the non-significant findings in the current model might also be explained by limitations in how empathy was operationalized. One of the indicators of empathy, the Fantasy subscale, was non-significantly related to the Empathy latent variable in this study. Further investigation into the applicability of Fantasy for the measurement of empathy in a population of graduate students in counseling may be warranted. Additionally, the measure used for empathy in the current study, the IRI, is a self-report inventory. It is possible that students in counseling may either over or underestimate their level of empathy, particularly because this factor is often very emphasized in counselor training. Future research using a more robust measure of empathy, or perhaps multiple measures of this construct, is needed. For example, future research could utilize supervisor evaluations of trainees' level of empathy toward their clients in addition to self-report measures.

The paths from UDO to multicultural competence, attitudes toward older adults, and interest in working with this population were all non-significant. This may be a result of the UDO construct having only a small relationship with attitudes toward aging and interest in working with seniors. UDO was also assessed in the present analysis using an abbreviated version of the measure. It is possible that the full version of the M-GUDS scale may have yielded different



results than those obtained in the current sample. It was particularly surprising that UDO was not related to multicultural competence in the present analysis, as this differs from previous research that has shown strong links between UDO and multicultural counseling competence (Miville et al., 1999). Thus, it is possible that the use of the full length M-GUDS scale should be utilized in future literature in this area.

The exploratory path from multicultural competence to attitudes toward older adults was also non-significant in the present study. Given that a single self-report inventory was used to measure multicultural competence, it is possible that students may have inaccurately reported their level of multicultural competence using this form. A future research project could include additional indicators of multicultural competence, such as grades in a multicultural counseling class or fieldwork evaluations of multicultural competence.

Two subscales of the MASQUE measure used in the current study to measure multicultural competence, the Care and Act subscales, had low reliability (.43 and .60, respectively) in the current sample, which may have resulted in the non-significant findings for the hypothesized paths between multicultural competence and attitudes toward older adults. Both the Care and Act subscales of the MASQUE have only a small number of items (6 items and 5 items, respectively). In situations like this, where a subscale has few items, Peterson (1994) indicates that it is more likely that lower estimates of reliability will be obtained. Thus, future research should consider using a measure of multicultural competence that demonstrates higher levels of reliability.

The reliability value of .20 for the MCSD-C scale (13 items) was also in the very low range in the current study. This low value suggests that participants may not have been consistent in their responses to the social desirability items included in the analysis. Additional research may be advised to utilize the full version of the MCSD, rather than the shortened version utilized in the present study, in order to provide a more reliable measure of socially desirable responding. Research is also needed to confirm the reliability of the MCSD as a measure of socially desirable responses in graduate students in counseling.

An additional shortcoming of the currently available measures of multicultural competence is that they may not accurately reflect student's level of competence in working with older adult clients. Currently, most measures of multicultural competence, including the MASQUE scale used in the current study, do not include items specific to working with older adult clients. Some researchers have recommended, however, that future measures of multicultural competence should address a clinician's ability to work with clients with multiple identities, including individuals from a variety of age groups (Yali & Revenson, 2004). Future research is needed in order to address the changes that may need to be made to existing measures of multicultural competence.

The current study also used a single indicator for interest in working with older adults. No existing literature has developed a full scale in order to measure interest in working with older adults. Future research using a multi-item scale that has been validated for use with counseling students may provide a richer set of results when assessing interest in working with seniors.

The present analysis utilized a hypothesized *a priori* model based on existing literature in the field of counseling on working with older adult clients. Though not investigated in the current analysis, it is possible that mediational relationships may exist between the variables of interest in the current study. For example, although empathy was not found to have a direct link with attitudes toward older adults, level of empathy may mediate the link between contact with older adults and attitudes toward working with this population. Given the limited research available on the links between these variables, however, mediational hypotheses were not specified *a priori*. Additional exploratory research examining mediational pathways that were not included in the present analysis may be warranted in the future, however.

A final limitation to be considered in the present study was the relatively small sample of participants and the limited amount of diversity represented by the sample in terms of their age, race, and sexual orientation. Although the sample of 266 participants meets the minimum requirements suggested by the initial power analysis, a larger and more representative sample of counseling trainees could shed additional light onto the links between the variables included in this study. Future research with larger samples may be used to either confirm or disconfirm the current findings.

First, the sample included in the current analysis consisted mainly of counseling trainees whose age places them in young adulthood. It is possible that perceived age differences between counselor trainees and older adult clients may influence attitudes toward older adults. Past research has shown that perception

of the aging process may change as an adult ages (Kite et al., 2005; McTavish, 1971). Although no known research has been conducted on the match between the age of a therapist when working with an older adult client, research on racial match between counselors and clients may provide some clues as to the importance of demographic differences on the therapeutic relationship more generally. The majority of literature in this area suggests that clients may prefer to work with counselors of the same race early on in treatment (Shin et al., 2005). Thus, it is also possible that older adults may prefer to work with counselors who are closer to their own age when treatment begins. Younger adults, who may perceive this type of preference in an older adult client to be a barrier to treatment, may choose to work with senior clients less often. Additional research examining differences in counselor perceptions of older adult clients between younger counselors and older counselors is likely needed in order to determine the impact that age is likely to have on attitudes toward older adults and interest in working with this population.

Second, the majority of the current sample was European American and heterosexual. Counseling trainees from minority groups, such as gay, lesbian or bisexual individuals, or individuals from other ethnic or cultural backgrounds who were not adequately represented in the present analysis, may have different views on older adults, however. For example, individuals from Asian cultures have been shown to hold more positive views of aging in comparison with individuals from Western countries (Lockenhoff et al. 2010). It is possible that Asian American counselors may have more positive attitudes toward older adults in

comparison with European American counselors. Future research with counselors from diverse groups is needed in order to determine whether or not the current findings are generalizable to counselors from a variety of cultural backgrounds.

Finally, the current sample of counseling trainees included graduate students from a variety of programs. It is possible that some specific disciplines within the field of counseling may have more contact with older adults in comparison with others. For example, the majority of research on trainee attitudes toward older adult clients has been conducted with social work students, with very little research being conducted on other students within the field of counseling (e.g. Mason & Sanders, 2004). Additionally, students in fields such as Marriage and Family Therapy may be more likely to encounter older adult clients as a part of their work within family systems. More research is needed to determine whether or not type of graduate program plays a role in counseling trainees' attitudes toward older adults or interest in working with this population.

#### *Contribution to the Literature*

This study contributes to the literature, as it is one of the first large scale surveys of attitudes toward older adults and interest in working with this population in a group of counseling trainees from across the United States. It is likely that increasing the numbers of mental health workers who specialize in working with older adults will become quite salient in the future, as the baby boomer cohort moves into older adulthood (Hartman-Stein & Potkanowicz, 2003). Additionally, the use of a complex statistical analysis like structural

equation modeling is an important addition to the literature in this area which has previously used less complex statistical techniques.

The field of mental health will soon need to evaluate the growing discrepancy between the need for clinicians who are competent and comfortable in working with older adult clients and the demand for services for these individuals. Thus, the current research study provides a much needed starting point for evaluating the underlying reasons why the older adult age group has been largely ignored in the past in professional training in psychology (e.g., Qualls et al., 2002). This study also provides some evidence for possible ways in which the field can increase the numbers of clinicians who work with older adult clients.

The current research study additionally contributes to the literature in that it examined several exploratory relationships with attitudes toward older adults and interest in working with this population. Some constructs, such as empathy, multicultural competence and UDO, were found not to be significantly linked with the outcomes variables of interest in this study. These non-significant relationships suggest that we may need to reevaluate the ways in which these constructs are measured when considering older adults. It is possible that the measurement of multicultural competence and UDO may in the future need to further address issues directly related to comfort with age differences. This study underscores the fact that additional research is needed in order to continue to build upon our knowledge of the ways in which we can work toward changing the

existing stereotypes and negative attitudes toward aging in mental health professionals in the future.

The most important contribution of this research is that it reaffirms the importance of increasing contact with the older adult population in order to increase positive attitudes toward seniors and future interest in working with this population. Training programs in counseling should strongly consider adding additional contact with older adults as an important component of training, in order to produce students who are able to meet the demands of the changing population. Increasing the amount of contact with older adults could be done in a number of ways, such as bringing in older adult guest speakers, covering more issues related to the older adult population in courses, or increasing practicum or internship opportunities to work directly with senior clients.

This study provides a good starting point for additional research on counseling trainees' attitudes toward older adults and interest in working with the older adult population. Much more literature is needed in this area, however, in order to aid training programs in increasing the numbers of mental health professionals going into the field who are competent and interested in working with this age group. The results of the current study suggest that training programs can begin this process by increasing students' opportunities to interact with and learn about working with older adults.

## References

- Adams, A. C. (2009). *Relationships of college students' cultural characteristics, multicultural counseling expectations, and willingness to seek psychological help* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3354760).
- Administration on Aging. (2001). *Older Adults and Mental Health: Issues and Opportunities*. Rockville, MD: Department of Health and Human Services.
- Allport, G. W. (1958). *The nature of prejudice*. Garden City, NY: Doubleday Anchor Books.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4<sup>th</sup> ed.). Washington, D. C.: Author.
- American Psychological Association. (2004, May). *Guidelines for psychological practice with older adults*. Retrieved, January 8, 2010, from <http://www.apapracticecentral.org/ce/guidelines/older-adult-practice.pdf>
- Amir, Y. (1969). Contact hypothesis in ethnic relations. *Psychological Bulletin*, 71(5), 319-342.
- Anderson, D. & Wiscott, R. (2003). Comparing social work and non-social work students' attitudes toward aging: Implications to promote work with elders. *Journal of Gerontological Social Work*, 42(2), 21-36. doi: 10.1300/JD83v42n02
- Arbuckle, J. L. (2009). *Amos 18.0 User's Guide*. Chicago: SPSS, Inc.
- Arno, P. S., Levine, C., & Memmot, M. M. (1999). The economic value of informal caregiving. *Health Affairs*, 18(2), 182-188.



- Bartels, S. J. & Smyer, M. A. (2002). Mental disorders of aging: An emerging public health crisis? *The American Society on Aging*, 26(1), 14-20.
- Bartels, S. J., Dums, A. R., Oxman, T. E., Schneider, L. S., Arean, P. A., Alexopoulos, G. S., & Jeste, D. V. (2004). Evidence-based practices in geriatric mental health care. *Focus*, 2(2), 268-281.
- Becker, T. E. (2005). Potential problems in the statistical control of variables in organizational research: A qualitative analysis with recommendations. *Organizational Research Methods*, 8(3), 274-289. doi: 10.1177/1094428105278021
- Bell, J. (1992). In search of a discourse on aging: The elderly on television. *The Gerontologist*, 32, 305-311.
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness-of-fit in the analysis of covariance structures. *Psychological Bulletin*, 88, 588-606.
- Braun, K. L., Cheang, M., & Shigeta, D. (2005). Increasing knowledge, skills, and empathy among direct care workers in elder care: A preliminary study of an active-learning model. *The Gerontologist*, 45(1), 118-124.
- Browne, M. W. & Cudeck, R. (1993). Alternative ways of assessing model fit. In Bollen, K. & Long, J. S. *Testing Structural Equation Models*. (Pp 136-162). Newbury Park, California: Sage Publications Ltd.
- Burkard, A. W. & Knox, S. (2004). Effect of therapist color-blindness on empathy and attributions in cross-cultural counseling. *Journal of Counseling Psychology*, 51(4), 387-397. doi: 10.1037/0022-0167.51.4.387

- Butler, R. N. (1969). Age-ism: Another form of bigotry. *The Gerontologist*, 9, 243-246.
- Butler, R. N. (1975). Psychiatry and the elderly: An overview. *The American Journal of Psychiatry*, 135, 893-900.
- Caspi, A. (1984). Contact hypothesis and inter-age attitudes: A field study of cross-age contact. *Social Psychology Quarterly*, 47(1), 74-80.
- Chou, C. P. & Bentler, P. M. (2002). Model modification in structural equation modeling by imposing constraints. *Computational Statistics & Data Analysis*, 41(2), 271-278. doi: 10.1016/S0167-9473(02)00097-X
- Cohen, E. S. (2001). The complex nature of ageism: What is it? Who does it? Who perceives it? *The Gerontologist*, 41(5), 576-577.
- Cole, D. A., Ciesla, J. A., Steiger, J. H. (2007). The insidious effects of failing to include design-driven correlated residuals in latent-variable covariance structural analysis. *Psychological Methods*, 12(4), 381-398. doi: 10.1037/1082-989X.12.4.381
- Colenda, C. C., Mickus, M., Marcus, S., Tanielian, T., & Pincus, H. (2002). Comparison of adult and geriatric psychiatric practice patterns: Findings from the American Psychiatric Association's practice research network. *American Journal of Geriatric Psychiatry*, 10(5), 609-617.
- Coulton, C. & Frost, A. K. (1982). Use of social and health services by the elderly. *Journal of Health and Social Behavior*, 23(4), 330-339.  
<http://www.jstor.org/pss/2136491>

- Conner, K. O., Copeland, V. C., Grote, N. K., Koeske, G., Rosen, D., Reynolds, C. F., & Brown, C. (2010). Mental health treatment seeking among older adults with depression: The impact of stigma and race. *The American Journal of Geriatric Psychiatry*, 18(6), 531-543.
- Constantine, M. (2000). Social desirability attitudes, sex, and affective and cognitive empathy as predictors of self-reported multicultural counseling competence. *The Counseling Psychologist*, 28(6), 857-872.
- Constantine, M. (2002). Racism attitudes, white racial identity attitudes, and multicultural counseling competence in school counselor trainees. *Counselor Education and Supervision*, 41(3), 162-174.
- Constantine, M. G., Arorash, T. J., Barakett, M. D., Blackmon, S. M., Donnelly, P. C., & Edles, P. A. (2001). School counselors' universal-diverse orientation and aspects of their multicultural counseling competence. *Professional School Counseling*, 5(1), 13-18.
- Constantine, M. G. & Ladany, N. (2001). New visions for defining and assessing multicultural counseling competence. In J. G. Ponterotto, J. M. Casas, A. Suzuki, & C. M. Alexander (Eds.), *Handbook of multicultural counseling* (2<sup>nd</sup> Edition). (pp. 482-498). Thousand Oaks, CA: Sage.
- Constantine, M. G., Juby, H. L., & Liang, J. J. (2001). Examining multicultural counseling competence and race-related attitudes among white marital and family therapists. *Journal of Marital and Family Therapy*, 27(3), 353-362.

- Corrigan, P. W., Swantek, S., Watson, A., C., & Kleinlein, P. (2003). When do older adults seek primary care services for depression? *Journal of Nervous and Mental Disease*, 191(9), 619-622. doi: 10.1097/01.nmd.0000087190.09305.b6
- Crowne, D. P. & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 24, 349-354.
- Curran, J. B., Hayslip, B., Scheider, L. J., & Kookan, R. A. (1998). Cohort differences in attitudes toward mental health services among older persons. *Psychotherapy: Theory, Research, Practice, Training*, 35(4), 506-518. doi: 10.1037/h0087857
- Danner, D. D., Snowdon, D. A., & Friesen, W. V. (2001). Positive emotions in early life and longevity: Findings from the Nun Study. *Journal of Personality and Social Psychology*, 30, 804-813.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, 44(1), 113-126.
- Doka, K. J. (1985). Adolescent attitudes and beliefs toward aging and the elderly. *International Journal of Aging and Human Development*, 22(3), 173-187.
- Easterlin, R. A., Schaeffer, C. M., & Macunovich, D. J. (1993). Will the baby boomers be less well off than their parents? Income, wealth, and family circumstances over the life cycle in the United States. *Population and Development Review*, 19(5), 497-522. <http://www.jstor.org/stable/2938464>

- Eisenberg, N. & Strayer, J. (1990). *Empathy and Its Development*. New York, NY: Cambridge University Press.
- Enders, C. K. & Bandalos, D. L. (2001). The relative performance of full information maximum likelihood estimation for missing data in structural equation models. *Structural Equation Modeling: A Multidisciplinary Journal*, 8(3), 430-457. doi: 10.1207/S15328007SEM0803\_5
- Everhart, D. E., Blieszner, R., & Edwards, T. M. (1996). Doctoral training in the psychology of adult development and aging: 1993-1994 survey results. *Educational Gerontology*, 22(5), 451-466. doi: 10.1080/030127960220505
- Faber, M., Boostmavan der Wiel, A., Excel, E., Gussekloo, J., Lagaay, A. M., Dongen, E., Kook, D. L., Geest, S., & Westendorp, R. G. J. (2001). Successful aging in the oldest old: What can be characterized as successfully aged? *Archives of Internal Medicine*, 161, 2694-2700. doi: 0022-0167/87
- Fassinger, R. E. (1987). Use of structural equation modeling in counseling psychology research. *Journal of Counseling Psychology*, 34(4), 425-436. doi: 0022-0167/87
- Flinn, F. J. (2005). Having an open mind: The impact of openness to experience on interracial attitudes and impression formation. *Journal of Personality and Social Psychology*, 88(5), 816-826.
- Fraboni, M., Saltstone, R., & Hughes, S. (1990). The Fraboni Scale of Ageism (FSA): An attempt at a more precise measure of ageism. *Canadian Journal of Aging*, 9, 56-66.

- Fuertes, J. N., Miville, M. L., Mohr, J. J., Sedlacek, W. E., & Gretchen, D. (1999). Factor structure and short form of the Miville-Guzman Universality-Diversity Scale. *Measurement and Evaluation in Counseling and Development, 33*, 157-169.
- Gaertner, S. L., & Dovidio, J. F. (2000). *Reducing Intergroup Bias: The Common Ingroup Identity Model*. Philadelphia, PA: Psychology Press.
- Gatz, M. & Pearson, C. G. (1988). Ageism revised and the provision of psychological services. *American Psychologist, 43*(3), 184-188.
- Gfroerer, J., Penne, M., Pemberton, M., & Folsom, R. (2003). Substance abuse treatment need among older adults in 2020: The impact of the aging baby-boomer cohort. *Drug and Alcohol Dependence, 69*(2), 127-135. doi: 10.1016/S0376-8716(02)00307-1
- Goldstein, J. M. & Horgan, C. M. (1988). Inpatient and outpatient psychiatric services: Substitutes or complements? *Hospital & Community Psychiatry, 39*, 632-636.
- Gorelik, Y., Damron-Rodriguez, J., Funderburk, B., & Solomon, D. H. (2000). Undergraduate interest in aging: Is it affected by contact with older adults? *Educational Gerontology, 26*(7), 623-638. doi: 10.1080/0301270050200026
- Graham, I. D. & Baker, P. M. (1989). Status, age, and gender: Perceptions of old and young people. *Canadian Journal on Aging, 8*, 255-267.

- Gutsell, J. N. & Inzlicht, M. (2010). Empathy constrained: Prejudice predicts reduced mental stimulation of actions during observation of outgroups. *Journal of Experimental Social Psychology*, 46(5), 841-845. doi: 10.1016/j.jesp.2010.03.011
- Hale, N. M. (1988). Effects of age and interpersonal contact on stereotyping of the elderly. *Current Psychology*, 17(1), 28-38. doi: 10.1007/s12144-998-1019-2
- Hall, R. J., Snell, A. F., & Foust, M. S. (1999). Item parceling strategies in SEM: Investigating the subtle effects of unmodeled secondary constructs. *Organizational Research Methods*, 2(3), 233-256.
- Halpain, M. C., Harris, M. J., McClure, F. S., & Jeste, D. V. (1999). Training in geriatric mental health: Needs and strategies. *Mental Health & Aging*, 50(9), 1205-1208.
- Hancock, G. R. (2006). Power analysis in covariance structure modeling. In G. R. Hancock & R. O. Mueller (Eds.), *Structural equation modeling: A second course* (pp. 69-115). Greenwich, CT: Information Age Publishing.
- Happell, B. & Brooker, J. Who will look after my grandmother? Attitudes of student nurses toward the care of older adults. *Journal of Gerontological Nursing*, 27(12), 12-7.

- Hartman-Stein, P. E. & Potkanowicz, E. S. (2003). Behavioral determinants of healthy aging: Good news for the baby boomer generation. *The Online Journal of Issues in Nursing*, <http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Vol142009/No3Sept09/Articles-Previous-Topics/Update-and-Baby-Boomer-Generation.aspx>
- Harris, J. & Fiedler, C. M. (1988). Preadolescent attitudes toward the elderly: An analysis of race, gender and contact variables. *Adolescence*, 23(90), 335-340.
- Harwood, J., Hewstone, M., Paolini, S., & Voci, A. (2005). Grandparent-grandchild contact and attitudes toward older adults: Moderator and mediator effects. *Personality and Social Psychology Bulletin*, 31(3), 393-406. doi: 10.1177/0146167204271577
- Have, T. M., Graaf, R. D., Ormel, J., Vilgaut, G., Kovess, V. & Alonso, J. (2010). Are attitudes towards mental health help-seeking associated with service use? Results from the European Study of Epidemiology of Mental Disorders. *Social Psychiatry and Psychiatric Epidemiology*, 45, 153-163. doi: 10.1007/s00127-009-0050-4
- Herek, G. M. & Capitamio, J. P. (1996). "Some of my best friends": Intergroup contact, concealable stigma, and heterosexuals' attitudes toward gay men and lesbians. *Personality and Social Psychology Bulletin*, 22(4), 412-424.



- Hewstone, M. & Brown, R. (1986). Contact is not enough: An intergroup perspective on the 'contact hypothesis': Contact and conflict in intergroup encounters. In Hewstone, M. & Brown, R. (Eds.), *Social Psychology and Society*. (pp. 1-44). Cambridge, MA: Basil, Blackwell.
- Heyman, J. C., Gutheil, I. A., Candela, V. C., Phipps, C., Guishard, D., & Moore, P. (2005). Undergraduate college students' interest in aging advocacy. *The Journal of Pastoral Counseling*, 40, 63-72.
- Hinrichsen, G. A. (2006). Why multicultural issues matter for practitioners working with older adults. *Professional Psychology: Research and Practice*, 37(1), 29-35.
- Hooper, D., Coughlan, J., & Mullen, M. R. (2008). Structural equation modeling: Guidelines for determining model fit. *Journal of Business Research Methods*, 6(1), 53-60.
- Hughes, M. E. & O'Rand, A. M. (2000). The lives and times of the baby boomers. In R. Farley & J. Haaga (Eds.), *The American People: Census 2000* (pp. 224-254). New York, NY: Russell Sage Foundation.
- Hummert, M. L., Garstka, T. A., Shaner, J. L., & Strahm, S. (1994). Stereotypes of the elderly held by young, middle-aged, and elderly adults. *The Journal of Gerontology: Psychological Sciences*, 49(6), P240-P249.
- Intrieri, R. C., Kelly, J. A., Brown, M. M., & Castilla, C. (1993). Improving medical students' attitudes toward and skills with the elderly. *The Gerontologist*, 33(3), 373-378.

- Ivey, A. E. (1995). Psychotherapy as liberation: Toward specific skills and strategies in multicultural counseling and therapy. In J. G. Ponterotto, J. M. Casas, L. A. Suzuki, & C. M. Alexander (Eds.), *The Handbook of Multicultural Counseling (2<sup>nd</sup> Edition)* (pp. 87-98). Thousand Oaks, CA: Sage.
- James, J. & Haley, W. (1995). Age and health bias in practicing clinical psychologists. *Psychology and Aging, 10*(4), 610-616.
- Jeste, D. V., Alexopoulos, G. S., Bartels, S. J., Cummings, J. L., Gallo, J. J., Gottlieb, G. L., Halpain, M. C., Palmer, B. W., Patterson, T. L., Reynolds, C. F., & Lebowitz, B. D. (1999). Consensus statement on the upcoming crisis in geriatric mental health. *Archives of General Psychiatry, 56*, 848-853.
- Katz, S., Ford, A. B., Moskowitz, R. W., Jackson, B. A., & Jaffe, M. W. (1963). Studies of illness in the aged. The index of ADL: A standardized measure of biological and psychosocial function. *Journal of the American Medical Association, 185*, 914-923.
- Kite, M. E. & Johnson, B. T. (1988). Attitudes toward older and younger adults: A meta-analysis. *Psychology and Aging, 3*(3), 233-244. doi: 10.1037/0882-7974.3.3.233
- Kite, M. E., Stockdale, G. D., Whitley, B. E., & Johnson, B. T. (2005). Attitudes toward younger and older adults: An updated meta-analytic review. *Journal of Social Issues, 61*(2), 241-266.

- Klap, R., Unroe, K. T. & Unutzer, J. (2003). Caring for mental illness in the United States: A focus on older adults. *American Journal of Geriatric Psychiatry*, 11(5), 517-524.
- Koenig, H. G., George, L. K., & Schneider, R. (1994). Mental health care for older adults in the year 2020: A dangerous and avoided topic. *The Gerontologist*, 34(5), 674-679.
- Kogan, N. (1961). Attitudes toward old people: The development of a scale and an examination of its correlates. *Journal of Abnormal Social Psychology*, 62, 44-45.
- Knickman, J. R. & Snell, E. K. (2002). The 2030 problem: Caring for aging baby boomers. *Health Services Research*, 37(4), 849-884. doi: 10.1034/j.1600.0550.2002.56.x
- Knogsved, S. M., Basnov, M., Holm-Christensen, K., & Hjollund, N. H. (2007). Response rate and completeness of questionnaires: A randomized study of internet versus paper-and-pencil versions. *Journal of Medical Internet Research*, 9(3), e25. doi: 10.2196/jmir.9.3.e25
- Koplan, J. P. & Fleming, D. W. (2000). Current and future public health challenges. *Journal of the American Medical Association*, 284(13), 1696-1698. doi: 10.1001/jama.284.13.1696
- Lambert, M. J. & Barley, D. E. (2001). Research summary on the therapeutic relationship and psychotherapy outcome. *Psychotherapy: Theory, Research, Practice, Training*, 38(4), 357-361.

- Lawrence, A., Jarman-Rohde, L., Dunkle, R., Campbell, R., Bakalar, H., & Li, L. (2002). Student pioneers and educational innovations: Attracting students to gerontology. *Journal of Gerontological Social Work*, 39(1), 91-110.
- Lawton, M. P. & Brody, E. M. (1969). Assessment of older people: Self-maintaining and instrumental activities of daily living. *The Gerontologist*, 9, 179-186.
- Lee, Y. (2000). The predictive value of self-assessed general, physical, and mental health on functional decline and mortality in older adults. *Journal of Epidemiology and Community Health*. 54, 123-129.
- Lee, H. S., Brennan, P. F., & Daly, B. J. (2001). Relationship of empathy to appraisal, depression, life satisfaction, and physical health in informal caregivers of older adults. *Research in Nursing & Health*, 24(1), 44-56. doi: 10.1002/1098-240X(200102)
- Lee, R. & Skinner, J. (1999). Will aging baby boomers bust the federal budget? *Journal of Economic Perspectives*, 13(1), 117-140.
- Levin, W. C. (1988). Age stereotyping: College student evaluations. *Research on Aging*, 10, 134-148.
- Lichtenberg, P. A., & Rosenthal, M. (1994). Characteristics of geriatric rehabilitation programs: A survey of practitioners. *Rehabilitation Psychology*, 39(5), 277-281.
- Lockenhoff, C. E. et al. (2010). Perceptions of aging across 26 cultures and their culture-level associates. *Psychology and Aging*, 24(4), 941-954. doi: 10.1037/a0016901

- Lomax, R. G. (2001). *Statistical Concepts: A Second Course for Education and the Behavioral Sciences* (2<sup>nd</sup> edition). Mahwah, NJ: Lawrence Erlbaum Associates.
- Luoma, J. B., Martin, C. E., & Pearson, J. L. (2002). Contact with mental health and primary care providers before suicide: A review of the evidence. *American Journal of Psychiatry*, 159, 909-916.
- Maples, M. F. & Abney, P. C. (2006). Baby boomers mature and gerontological counseling comes of age. *Journal of Counseling and Development*, 84(1), 3-9.
- Mason, S. E. & Sanders, G. R. (2004). Social work student attitudes on working with older clients. *The Journal of Gerontological Social Work*, 42(3), 61-75. doi: 10.1300/J083v42n03\_05
- Matyi, C. L. & Drevenstedt, J. (1989). Judgments of elderly and young clients as functions of gender and interview behaviors: Implications for counselors. *Journal of Counseling Psychology*, 36, 451-455.
- McTavish, D. G. (1971). Perceptions of old people: A review of research methodologies and findings. *The Gerontologist*, 11, 90-101.
- Miville, M. L., Carlozzi, A. F., Gushue, G. V., Schara, S. L., & Ueda, M. (2006). Mental health counselor qualities for a diverse clientele: Linking empathy, universal-diverse orientation and emotional intelligence. *Journal of Mental Health Counseling*, 28(2), 151-165.

- Miville, M. L., Gelso, C. J., Pannu, R., Liu, W., Touradji, P., Holloway, P., & Fuertes, J. N. (1999). Appreciating similarities and valuing differences: The Miville-Guzman Universality Diversity Scale. *Journal of Counseling Psychology, 46*, 291-307.
- Mumford, E., Schlesinger, H. J., Glass, G. V., Patrick, C., & Cuerdon, T. (1998). A new look at evidence about reduced cost of medical utilization following mental health treatment. *Journal of Psychotherapy Practice and Research, 7*, 65-86.
- Munro, G. D., Weih, C., & Tsai, J. (2010). Motivated suspicion: Asymmetrical attributions of behavior of political ingroup and outgroup members. *Basic and Applied Social Psychology, 32*(2), 173-184, doi: 10.1080/01873531003738551
- Munroe, A. & Pearson, C. (2006). The Munroe Multicultural Attitude Scale Questionnaire: A new instrument for multicultural studies. *Educational and Psychological Measurement, 66*(5), 819-834. doi: 10.1177/0013164405285542
- National Institutes of Health (1987). *Personnel for health needs of the elderly through the year 2020* (Pub. No. 87-2950). Washington, D.C.: U.S. Government Printing Office.
- Nelson, T. D. (2004). *Ageism: Stereotyping prejudice and stereotyping among older persons*. New Baskerville: Graphic Composition, Inc.
- Nelson, T. D. (2005). Ageism: Prejudice against our feared future selves. *Journal of Social Issues, 61*(2), 207-221.

- Norcross, J. C. & Wampold, B. E. (2011). Evidence-based therapy relationships: Research conclusions and clinical practices. *Psychotherapy*, 48(1), 98-102. doi: 10.1037/a0022161
- Norman, S., Ishler, K., Ashcraft, L., & Patterson, M. (2001). Continuing education needs in clinical geropsychology. *Clinical Gerontologist*, 22(3), 37-50. doi: 10.1300/J018v22n03\_05
- Nosek, B. A. & Banaji, M. R. (2002). E-Research: Ethics, security, design, and control in psychological research on the internet. *Journal of Social Issues* 58(1), 161-176. doi: 10.1111/1540-4560.00254
- Olfson, M., Sing, M., & Schlesinger, H. J. (1999). Mental health/medical care cost offsets: Opportunities for managed care. *Health Affairs*, 18(2), 79-90. doi: 10.1377/hlthaff.18.2.79
- Okun, M. A., Stock, W. A., & Weir, R. M. (1985). Doctoral training in the psychology of adult development and aging. *Educational Gerontology*, 11(6), 349-361.
- Packer, D. J. & Chasteen, A. L. (2006). Looking to the future: How possible aged selves influence prejudice toward older adults. *Social Cognition*, 24(3), 218-247
- Palmore, E. (2001). The ageism survey: First findings. *The Gerontologist*, 41(5), 572-575.
- Palmore, E. B. (2004). Research note: Ageism in Canada and the United States. *Journal of Cross-Cultural Gerontology*, 19(1), 41-46.

- Peterson, R. A. (1994). A meta-analysis of Cronbach's coefficient alpha. *Journal of Consumer Research*, 21(2), 381-391.
- Patterson, T. L. & Jeste, D. V. (1999). The potential impact of the baby-boom generation on substance abuse among elderly persons. *Mental Health & Aging*, 50(9), 1184-1188.
- Pettigrew, T. F. & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, 90(5), 751-783. doi: 10.1037/DD22-3514.90.5.751
- Polizzi, K. G. (2003). Assessing attitudes toward the elderly: Polizzi's refined version of the aging semantic differential. *Educational Gerontology*, 29(3), 197-216. doi: 10.1080/71344306
- Popan, J. R., Kenworthy, J. B., Barden, M. A., & Griffiths, J. (2010). Intergroup bias in weight controllability attributions. *Group Processes & Intergroup Relations*, 13(3), 319-328. doi: 10.1177/1368430209350474
- Perdue, C. W. & Gurtman, M. B. (1990). Evidence for the automaticity of ageism. *Journal of Experimental Social Psychology*, 26(3), 199-216.
- Pulos, S., Elison, J., Lennon, R. (2004). The hierarchical structure of the Interpersonal Reactivity Index. *Social Behavior and Personality: An International Journal*, 32(4), 355-359. doi: 10.2224/sbp.2004.32.4.355
- Qualls, S. H. (1998). Training in geropsychology: Preparing to meet the demand. *Professional Psychology: Research and Practice*, 29(1), 23-28.



- Qualls, S. H., Segal, D. L., Norman, S., Nederehe, G., & Gallagher-Thompson, D. (2002). Psychologists in practice with older adults: Current patterns, sources of training and need for continuing education. *Professional Psychology: Research and Practice*, 33(5), 435-442.
- Quintana, S. M. & Maxwell, S. E. (1999). Implications of recent developments in structural equation modeling for counseling psychology. *The Counseling Psychologist*, 27(4), 485-521. doi: 10.1177/0011000099274002
- Ragan, A. M. & Bowen, A. M. (2001). Improving attitudes regarding the elderly population: The effects of information and reinforcement for change. *The Gerontologist*, 41(4), 511-515.
- Reynolds, W. M. (1982). Development of reliable and valid short forms of the Marlowe-Crowne social desirability scale. *Journal of Clinical Psychology*, 38(1), 119-125.
- Robert, R. & Mosher-Ashley, P. M. (2000). Factors influencing college students to choose careers working with elderly persons. *Educational Gerontology*, 26(1), 725-736.
- Rosencranz, H. A., & McNevin, T. E. (1969). A factor analysis of attitudes toward the aged. *The Gerontologist*, 9(1), 55-59 doi: 10.1093/geront/9.1.55
- Rupp, D., Vodanovich, S. J., & Credé, M. (2005). The multidimensional nature of ageism: Construct validity and group differences. *The Journal of Social Psychology*, 145(3), 335-362.

- Seefeldt, C., Jantz, R. K., Galper, A., & Serock, K. (1977). Using pictures to explore children's attitudes toward the elderly. *The Gerontologist*, 17(6), 506-512. doi: 10.1093/geront/17.6.506
- Schleyer, T. K. & Forrest, J. L. (2000). Methods for the design and administration of web-based surveys. *Journal of the American Medical Informatics Association*, 7(4), 416-425.  
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC61445/>
- Schumacker, R. E., & Lomax, R. G. (2004). *A beginner's guide to structural equation modeling* (2<sup>nd</sup> ed.). Mahwah, NJ: Erlbaum.
- Sharps, M. J., Price-Sharps, J. L., & Hansen, J. (1998). Attitudes of young adults toward older adults: Evidence from the United States and Thailand. *Educational Gerontology*, 24(7), 655-660.
- Sheehan, K. B. (2006). E-mail survey response rates: A review. *Journal of Computer-Mediated Communication*, 6(2). doi: DOI: 10.1111/j.1083-6101.2001.tb00117.x
- Sherif, M. (1956). Experiments in group conflict. *Scientific American*, 195, 54-58.
- Sin, S.M., Chow, C., Camacho-Gonsalves, T., Levy, R. J., Allen, I E., & Leff, H. S. (2005). A meta-analytic review of racial-ethnic matching for African American and Caucasian American clients and clinicians. *Journal of Counseling Psychology*, 52(1), 45-56, doi: 10.1037/0022-0167.52.1.45
- Singley, D. B. & Sedlacek, W. (2004). Universal-diverse orientation and precollege academic achievement. *Journal of College Student Development*, 45(1), 84-89. doi: 10.1353/csd.2004.0015

- Singley, D. B. & Sedlacek, W. (2009). Differences in universal-diverse orientation by race-ethnicity and gender. *Journal of Counseling & Development, 87*(4), 404-411.
- Sirey, J. A., Bruce, M. L., Alexopoulos, G. S., Perlick, D. A., Raue, P., Friedman, S. J., & Meyers, B. S. (2001). Percieved stigma as a predictor of treatment discontinuation in young and older outpatients with depression. *American Journal of Psychiatry, 158*(3), 479-481.
- Small, G. W., Fong, K., & Beck, J. C. (1988). Training in geriatric psychiatry: Will the supply meet the demand? *The American Journal of Psychiatry, 145*(4) 476-478.
- Soble, J. R., Spanierman, L. B., and Liao, H. (2010). Effects of a brief video intervention on White university students' racial attitudes. *Journal of Counseling Psychology, 58*(1), 151-157. doi: 10.1037/a0021158
- Sodowsky, G. R., Taffe, R. C., Gutkin, T. B., & Wise, S. L. (1994). Development of the Multicultural Counseling Inventory: A self-report measure of multicultural competencies. *Journal of Counseling Psychology, 41*(2), 137-148.
- Spanierman, L. B., Neville, H. A., Liao, H. Y., Hammer, J. H., & Wang, Y. F. (2008). Participation in formal and informal campus diversity experiences: Effects of students' racial democratic beliefs. *Journal of Diversity in Higher Education, 1*(2), 108-125. doi: 10.1037/1938-8926.1.2.108

- Spanierman, L. B., Poteat, P., Wang, Y., & Oh, E. (2008). Psychosocial costs of racism to White counselors: Predicting dimensions of multicultural counseling competence. *Journal of Counseling Psychology, 55*(1), 75-88. doi: 10.1037/0022-0167.55.1.75
- Spanierman, L. B., Todd, N. R., & Anderson, C. J. (2009). Psychosocial costs of racism to Whites: Understanding patterns among university students. *Journal of Counseling Psychology, 56*(2), 239-252. doi: 10.1037/a0015432
- Stanton, J. M. (1998). An empirical assessment of data collection using the internet. *Personnel Psychology, 51*(3), 709-725.
- Statts, S., Hupp, J. M., Wallace, H., & Gresley, J. (2009). Heroes don't cheat: An examination of academic dishonesty and students' views on why professors don't report cheating. *Ethics & Behavior, 19*(3), 171-183. doi: 10.1080/1050842080263716
- Stephan, W. G. & Finlay, K. (1999). The role of empathy in improving intergroup relations. *Journal of Social Issues, 55*(4), 729-743. doi: 10.1111/0022-4537.00144
- Strauss, J. P. & Connerly, M. L. (2003). Demographics, personality, contact, and universal-diverse orientation: An exploratory examination. *Resource Management, 42*(2), 159-174. doi: 10.1002/hrm.10074

- Stewart, T. J., Eleazer, P., Boland, R., & Wieland, D. (2007). The middle of the road: Results from the aging semantic differential with four cohorts of medical students. *Journal of the American Geriatrics Society*, 55(8), 1275-1280. doi: 10.1111/j.1532-5415.2007.01319.x
- Sue, S. (1998). In search of cultural competence in psychotherapy and counseling. *American Psychologist*, 53(4), 440-448.
- Stokes-Guinan, K. (2011). Age and skin tone as predictors of positive and negative racial attitudes in Hispanic children. *Hispanic Journal of Behavioral Sciences*, 33(1), 3-21, doi: 10.1177/073998610389303
- Sutton, M. C., Caskie, G. I. L., & Berkowitz, A. (2011, August). *Counseling trainees' attitudes toward and desire to work with older adult clients*. Poster presentation at the annual meeting of the American Psychological Association, Washington, D.C.
- Tomarken, A. J., & Waller, N. G. (2003). Potential problems with “well fitting” models. *Journal of Abnormal Psychology*, 112, 578–598.
- Thompson, R. L., Brossart, D. F., Carlozzi, A. F., & Miville, M. L. (2002). Five-factor model (Big Five) personality traits and universal-diverse orientation in counselor trainees. *Journal of Psychology: Interdisciplinary and Applied*, 136(5), 561-572. doi: 10.1080/00223980209605551
- United States Census Bureau. (2006). *Facts for features: Oldest baby boomers turn 60*. Retrieved from [http://www.census.gov/Press-Release/www/releases/archives/facts\\_for\\_features\\_special\\_editions/006105.html](http://www.census.gov/Press-Release/www/releases/archives/facts_for_features_special_editions/006105.html)

- Unutzer, J., Patrick, D. L., Simon, G., Grembowski, D., Walker, E., Rutter, C. & Katon, W. (1997). Depressive symptoms and the cost of health services in HMO patients aged 65 years and older. *Journal of the American Medical Association*, 277(20), 1618-1623.
- Varkey, P., Chutka, D. S., & Lesnick, T. G. (2006). The aging game: Improving medical students' attitudes toward caring for the elderly. *Journal of the American Medical Directors Association*, 7(4), 224-229.
- Verwoerdt, A. (1976). *Clinical geropsychiatry*. Baltimore, MD: Williams & Wilkins Co.
- Wan, H., Segupta, M., Velkoff, V. A., & DeBarros, K. A. (2005). 65+ in the United States: 2005. *U.S. Census Bureau*. Retrieved from <http://www.census.gov/prod/2006pubs/p23-209.pdf>
- Wang, P. S., Lane, M., Olfson, M., Pincus, H. A., Wells, K. B., & Kessler, R. C. (2005). Twelve month use of mental health services in the United States: Results from the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62, 629-640.
- West, S. G., Finch, J. F., Curran, P. J. (1995). Structural equation models with nonnormal variables: Problems and remedies. In R. Hoyle (Ed.) *Structural Equation Modeling: Concepts, Issues and Applications* (pp. 56-75). Thousand Oaks, CA: Sage Publications, Inc.
- Weston, R. & Gore, P. A. (2006). A brief guide to structural equation modeling. *The Counseling Psychologist*, 34(5), 719-751. doi: 10.1177/0011000006286345

- Wilensky, H. & Barmack, J. E. (1966). Interests of doctoral students in clinical psychology in work with older adults. *Journal of Gerontology*, 21(3), 410-414. doi: 10.1093/geronj/21.3.410
- Wilson, J. F. & Hafferty, F. W. (1980). Changes in attitudes toward the elderly one year after a seminar on aging and health. *Journal of Medical Education*, 55, 993-999.
- Wolinsky, F. D., Callahan, C. M., Fitzgerald, J. F., & Johnson, R. J. (1991). The risk of nursing home placement and subsequent death among older adults. *The Journal of Gerontology: Social Sciences*, 47(4), S173-S182.
- Yali, A. M. & Revenson, T. A. (2004). How changes in population demographics will impact health psychology: Incorporating a broader notion of cultural competence into the field. *Health Psychology* 23(2), 147-155. doi: 10.1037/0278-6133.23.2.147
- Yun, G. W. & Trumbo, C. W. (2006). Comparative response to a survey executed by post, e-mail, and web form. *Journal of Computer-Mediated Communication*, 6(1), xx - xx. doi: 10.1111/j.1083-6101.2000.tb00112.x
- Xu, X., Zuo, X., Wang, X., & Han, S. (2009). Do you feel my pain? Racial group membership modulates empathic neural responses. *The Journal of Neuroscience*, 29(26), 8525-8529.

Figure 1. Conceptual Full Model

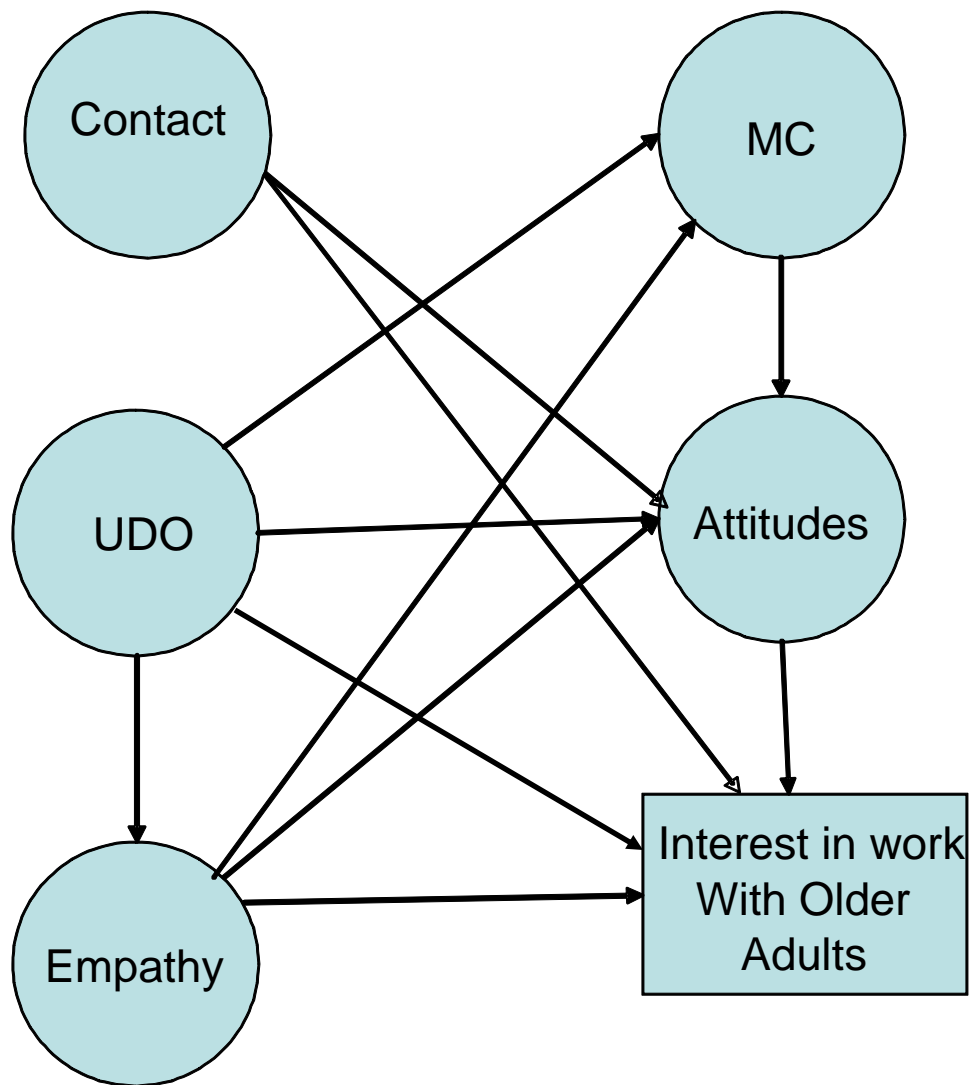




Figure 2. Conceptual Reduced Model

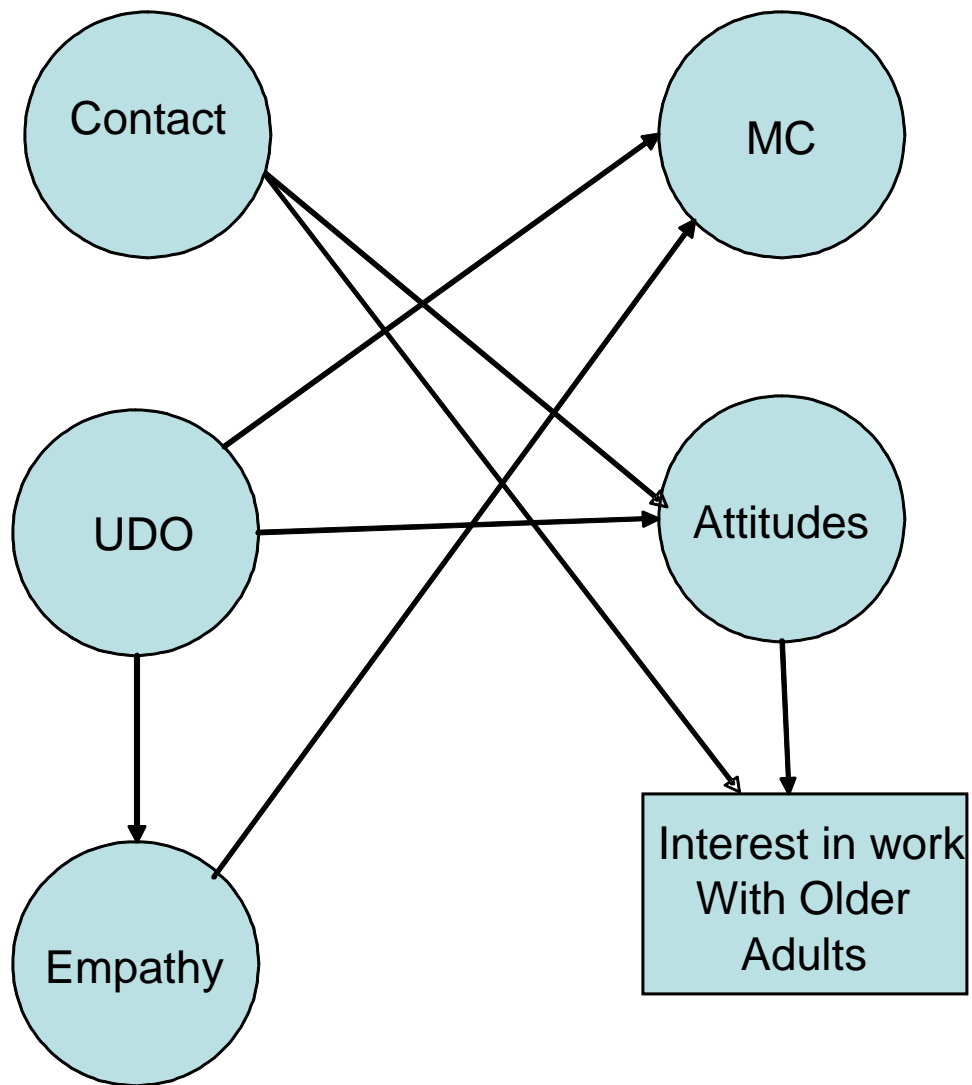


Figure 3. Modified Model

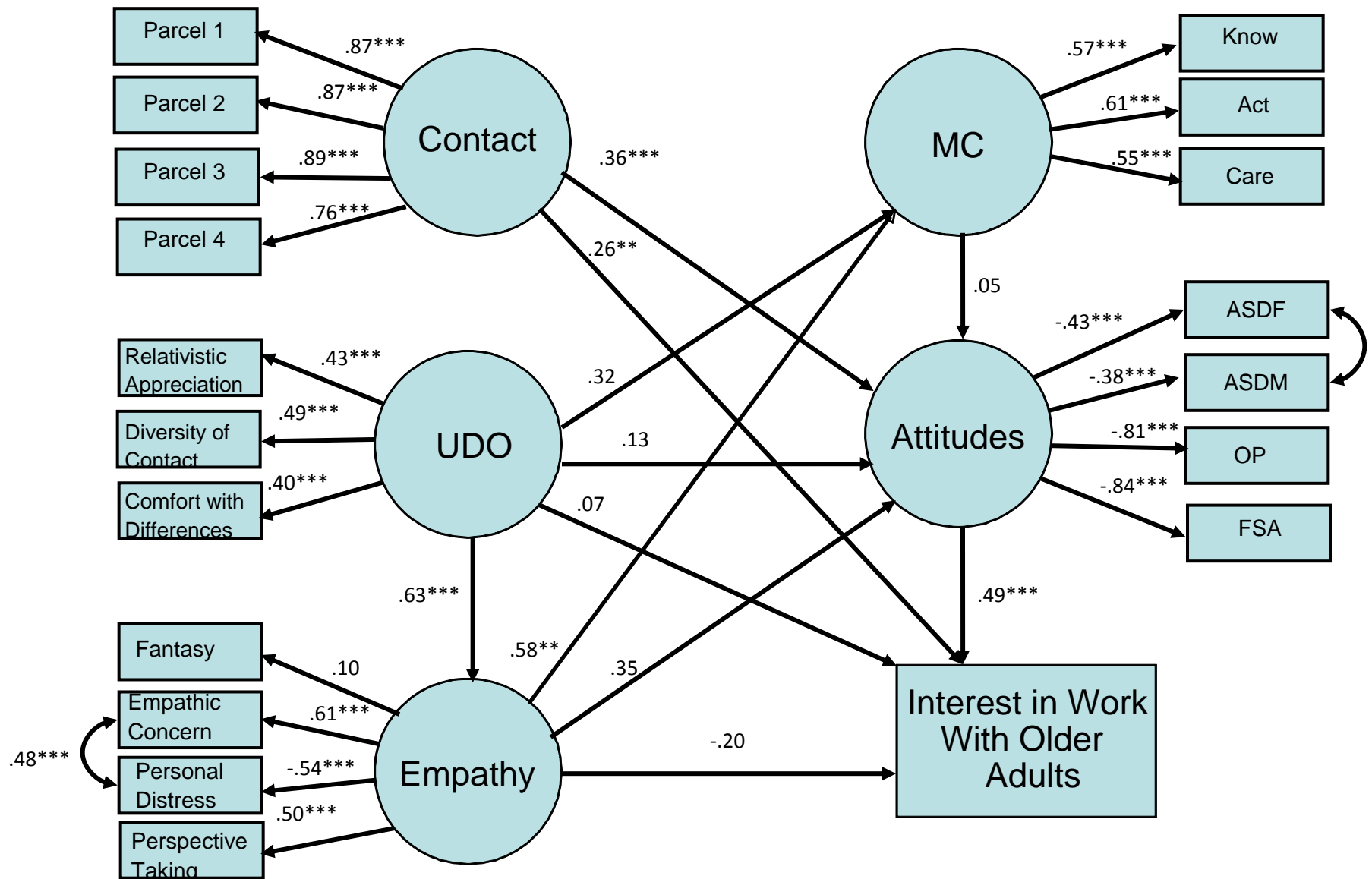


Table 1. *Percentage of Students Reporting Total Number of Therapy Clients by*

*Year of Study (n = 240)*

Year of Study	Total Number of Therapy Clients				
	0-20	20-50	50-100	100-500	500 or More
First	23.75	2.08	2.50	1.25	0.00
Second	23.75	4.17	2.92	1.25	0.42
Third	7.08	5.83	2.08	1.25	0.42
Fourth	2.08	1.67	2.92	2.08	0.42
Fifth or Beyond	0.83	4.17	2.50	4.17	0.42

*Note.* 26 Participants did not report this information.

Table 2. *Percentage of Students Reporting Total Number of Hours of Individual Therapy by*

*Year of Study (n = 242)*

Year of Study	Total Number of Hours of Individual Therapy				
	0-20	20-50	50-100	100-500	500 or More
First	21.90	1.65	2.48	2.07	1.65
Second	13.64	3.72	3.72	8.26	2.48
Third	2.89	0.83	2.89	9.09	1.65
Fourth	0.00	0.41	0.41	4.55	3.31
Fifth or Beyond	0.41	0.00	0.00	4.13	7.85

*Note.* 24 Participants did not report this information

Table 3. *Highest Level of Parental Education (Percent of Sample)*

Highest Level Completed	Mother	Father
No schooling	0.4	0.4
Less than 8 <sup>th</sup> grade	0.8	3.8
Some high school	1.5	3.0
High school graduate/equival	24.8	16.2
Some college	13.5	13.2
Associate's degree	11.5	7.1
Bachelor's degree	21.1	26.7
Master's degree	20.3	15.8
Professional degree	1.9	6.4
Doctorate degree	3.8	6.4

Table 4. *Income Level (Percent of Sample)*

Income	Student Income	Parental Income
< \$15,000	35.0	3.4
\$15,001 to \$24,999	14.7	5.3
\$25,000 to \$49,999	20.3	14.7
\$50,000 to \$99,999	23.7	34.6
\$100,000 to \$149,999	4.1	16.9
\$150,000 to \$199,999	0.8	8.3
\$200,000 to \$249,999	0.0	3.0
\$250,000 or more	0.8	7.9

Table 5. Means and Standard Deviations for Study Measures.

Variable	<i>M</i>	<i>SD</i>	<i>Skewness</i>	<i>Kurtosis</i>	<i>n</i>
ASDF	3.31	0.75	-0.28	-0.30	266
ASDM	3.68	0.76	-0.41	0.06	266
FSA	1.60	0.33	0.34	-0.50	266
OP	2.42	0.48	0.00	-0.50	266
Contact Parcel 1	3.41	0.67	-0.04	-0.57	266
Contact Parcel 2	3.04	0.60	0.05	-0.31	266
Contact Parcel 3	3.05	0.72	-0.05	-0.33	266
Contact Parcel 4	3.40	0.67	-0.28	-0.38	266
Interest	4.43	1.53	-0.31	-0.54	254
Empathic Concern	3.21	0.52	-0.65	0.18	253
Fantasy	2.67	0.73	-0.38	-0.25	253
Perspective Taking	3.01	0.50	-0.65	0.18	253
Personal Distress	1.26	0.67	0.28	-0.48	253
Act	4.08	0.54	-0.26	-0.34	252
Care	5.16	0.59	-0.42	-0.37	252
Know	5.77	0.36	-2.22	6.43	252
Comfort with Differences	4.37	0.64	-1.21	1.21	266
Realistic Appreciation	4.32	0.89	-0.34	0.20	266
Diversity of Contact	4.83	0.70	-0.69	1.12	266

Table 6. *Contact Item Descriptions (Percent of Sample)*

Item	Positive	Neutral	Negative	Never
1. How often have you had a long talk with an older adult?	86.5	10.9	1.9	0.4
2. How often have you had a brief conversation with an older adult?	84.6	13.9	1.1	0.0
3. How often have you eaten a meal with an older adult?	79.7	16.9	2.3	0.4
5. How often have older adults discussed their lives or problems with you?	65.0	23.3	8.6	3.0
6. How often have you discussed your life or problems with an older adult person?	66.5	15.8	3.4	13.5
7. How often have you tried to help older adults with their problems?	63.5	21.8	3.8	10.9
8. How often have older adults tried to help you with your problems?	65.0	15.0	4.5	15.0
9. How often have you worked with an older adult client, student, or patient on the job?	50.0	14.7	3.0	32.2
10. How often have you worked with an older adult co-worker?	55.6	16.9	4.5	22.2
11. How often has an older adult visited you in your home?	68.0	7.1	2.6	22.2
12. How often have you visited an older adult in their homes?	82.7	10.5	0.8	4.9



Table 7. *Item Parcels for the Contact Measure*

Parcel 1		Parcel 2		Parcel 3		Parcel 4	
Item	$\beta$	Item	$\beta$	Item	$\beta$	Item	$\beta$
1	0.78***	19	0.77***	5	0.76***	13	0.74***
6	0.71***	18	0.71***	15	0.71***	3	0.74***
2	0.67***	7	0.67***	8	0.66***	12	0.63***
9	0.39***	4	0.39***	10	0.48***	11	0.57***
16	0.27***	20	0.14**	17	0.12*	14	0.07
Cronbach's Alpha	.64		.67		.69		.72

Table 8. *Correlations for Analysis Variables*

Variable	1	2	3	4	5	6	7	8	9	10
1. ASDF	1									
2. ASDM	.65***	1								
3. FSA	.40***	.35***	1							
4. OP	.36***	.35**	.67***	1						
5. Contact Parcel 1	-.15*	-.20**	- .39***	- .39***	1					
6. Contact Parcel 2	-.20**	-.20**	- .40***	- .40***	.76***	1				
7. Contact Parcel 3	-.18**	-.20**	-.39**	- .42***	.78***	.77***	1			
8. Contact Parcel 4	- .21***	- .22***	- .35***	- .42***	.65***	.66***	.70***	1		
9. Interest	- .22***	-.19**	- .50***	- .42***	.45***	.45***	.42***	.30***	1	
10. Emp. Concern	-.06	-.05	- .31***	- .32***	.18**	.25***	.21**	.14*	.20***	1
11. Fantasy	.00	-.07	-.07	-.01	.04	-.02	.06	.06	-.08	.22**
12. Personal Dist.	.11	.08	.32***	.34***	-.19**	-.21**	- .24***	- .23***	-.13*	-.01
13. Persp. Taking	-.01	.10	-.12	-.21**	.09	.09	.06	.11	.05	.38***
14. Act	.01	.01	- .25***	- .24***	.20**	.24***	.23***	.16*	.15*	.28***
15. Care	-.11	.02	-.26**	-.28**	.10	.10	.08	.05	.03	.19**
16. Know	-.01	.00	- .29***	-.28**	.08	.12	.10	.05	.10	.30***
17. Div. of Contact	-.08	-.04	-.17**	-.17**	.23***	.19**	.27***	.15*	.20**	.04
18. Real. Appr.	-.04	-.00	-.17**	- .25***	.08	.10	.14*	.14*	.14*	.15*
19. Com. with Diff.	-.06	-.05	- .21***	- .26***	.17**	.16**	.14*	.11	.09	.06

Table 8, continued

Variable	11	12	13	14	15	16	17	18	19
11. Fantasy	1								
12. Personal Dist.	.17**	1							
13. Persp. Taking	.15*	-.20**	1						
14. Act	-.04	-.29***	.20**	1					
15. Care	.05	-.24***	.28***	.34***	1				
16. Know	.03	-.21***	.27***	.32***	.34***	1			
17. Div. of Contact	.09	-.15*	.17**	.28***	.15*	.13*	1		
18. Real. Appr.	.18**	.13*	-.11	.25***	.08	.28**	.30***	1	
19. Com. with Diff.	-.03	-.28***	.15*	.25***	.23***	.08	.19**	.10	1

\*  $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

Table 9. *Model Fit Statistics and Nested Model Comparison*

Model	$\chi^2$	$P$	$TLI$	$CFI$	$RMSEA$	Nested Comparison	$p$
Full Model	$\chi^2(140) = 270.14$	$< .001$	.89	.92	.06	$\Delta\chi^2(1) = 25.95$	$< .001$
Modified Model	$\chi^2(139) = 244.19$	$< .001$	.91	.94	.05		

Table 10. *Standardized Path Estimates for the Full Model*

Path			$\beta$
UDO	→	Empathy	0.78***
Empathy	→	Multicultural Competence	1.05**
UDO	→	Multicultural Competence	-0.14
Empathy	→	Attitudes	-1.13
UDO	→	Attitudes	0.19
Multicultural Competence	→	Attitudes	-0.51
Contact	→	Attitudes	0.39***
Empathy	→	Interest	-0.41*
Attitudes	→	Interest	-0.56***
Contact	→	Interest	0.20*
UDO	→	Interest	0.29

\* $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

Table 11. *Standardized Estimates of Indicators of Latent Constructs for the Full Model*

Latent Variable	Indicator	$\beta$
Contact	Parcel 1	.87***
	Parcel 2	.87***
	Parcel 3	.89***
	Parcel 4	.76***
UDO	Realistic Appreciation	.45***
	Diversity of Contact	.51***
	Comfort with Differences	.39***
Empathy	Fantasy	.10
	Empathic Concern	.46***
	Perspective Taking	.47***
	Personal Distress	-.44***

(table continues)

Table 11, continued

Latent Variable	Indicator	$\beta$
Multicultural Competence	Care	.57***
	Know	.58***
	Act	.58***
Attitudes	Fraboni Scale of Ageism	-.84***
	Aging Semantic Differential Male	-.38***
	Aging Semantic Differential Female	-.43***
	Old Persons	-.81***

\* $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

Table 12. *Modification Indices for Correlated Error Terms for Sample with Complete Data (n = 252)*

Covariance between Errors for			
Variable 1	Variable 2	M.I.	Parameter Change
Personal Distress	Empathic Concern	17.26	0.08
Personal Distress	Fantasy	14.88	0.11
Empathic Concern	Perspective	11.40	0.05
	Taking		
Fantasy	Empathic Concern	9.69	0.07
Contact Parcel 1	Contact Parcel 3	5.53	0.02
Realistic	Diversity of	4.04	0.07
Appreciation	Contact		



Table 13. *Regression Path Modification Indices for Sample with Complete Data (n = 252)*

Suggested Path			M.I.	Parameter Change
Multicultural Competence	→	ASDM	4.84	0.29
Empathy	→	ASDM	4.04	0.34
Contact	→	Personal Distress	4.03	-0.82

Table 14. *Standardized Path Estimates for the Modified Model*

Path			$\beta$
UDO	→	Empathy	0.63**
Empathy	→	Multicultural Competence	0.58**
UDO	→	Multicultural Competence	0.32
Empathy	→	Attitudes	-0.35
UDO	→	Attitudes	-0.13
Multicultural Competence	→	Attitudes	0.05
Contact	→	Attitudes	0.36***
Empathy	→	Interest	-0.20
Attitudes	→	Interest	-0.49***
Contact	→	Interest	0.26**
UDO	→	Interest	0.07

\* $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

Table 15. *Modified Model Standardized Estimates of Indicators of Latent Constructs*

Latent Variable	Indicator	$\beta$
Contact	Parcel 1	.87***
	Parcel 2	.87***
	Parcel 3	.89***
	Parcel 4	.76***
UDO	Realistic Appreciation	.43***
	Diversity of Contact	.49***
	Comfort with Differences	.40***
Empathy	Fantasy	.10
	Empathic Concern	.61***
	Perspective Taking	.50***
	Personal Distress	-.54***
Multicultural Competence	Care	.55*
	Know	.57*
	Act	.61*
Attitudes	Fraboni Scale of Ageism	-.84***
	Aging Semantic Differential Male	-.34***
	Aging Semantic Differential Female	-.38***
	Old Persons	-.81***

\* $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

Appendix A  
Demographic Form

1. Gender:

☐ Female

☐ Male

☐ Transgender

2. Age \_\_\_\_\_

3. Sexual Orientation:

☐ Heterosexual

☐ Gay/Lesbian

☐ Bisexual

☐ Other (Please specify: \_\_\_\_\_)

4. Your Ethnicity/Race (Check all that apply):

☐ African American/Black (not Hispanic)

☐ American Indian or Alaskan Native

☐ Asian American or Pacific Islander

☐ European American/White (not Hispanic)

☐ Hispanic/Latino

☐ Other (Please specify: \_\_\_\_\_)

5. What is your Annual Household Income?

☐ Under \$15,000

☐ \$15,001 to \$24,999

☐ \$25,000 to \$49,999

- \_\_\_\_\_ \$50,000 to \$99,999
- \_\_\_\_\_ \$100,000 to \$149,999
- \_\_\_\_\_ \$150,000 to \$199,999
- \_\_\_\_\_ \$200,000 to \$249,999
- \_\_\_\_\_ \$250,000 or more

6. How would you identify your social class?

- \_\_\_\_\_ Working Class
- \_\_\_\_\_ Lower Middle Class
- \_\_\_\_\_ Upper Middle Class
- \_\_\_\_\_ Upper Class

7. What is your parents' Annual Household Income?

- \_\_\_\_\_ Under \$15,000
- \_\_\_\_\_ \$15,001 to \$24,999
- \_\_\_\_\_ \$25,000 to \$49,999
- \_\_\_\_\_ \$50,000 to \$99,999
- \_\_\_\_\_ \$100,000 to \$149,999
- \_\_\_\_\_ \$150,000 to \$199,999
- \_\_\_\_\_ \$200,000 to \$249,999
- \_\_\_\_\_ \$250,000 or more

8. How would you identify your parents' social class?

- \_\_\_\_\_ Working Class
- \_\_\_\_\_ Lower Middle Class
- \_\_\_\_\_ Upper Middle Class
- \_\_\_\_\_ Upper Class

9. What is your mother's highest level of education?

- ☐ No schooling completed
- ☐ Less than 8<sup>th</sup> grade
- ☐ Some high school (No diploma)
- ☐ High school graduate or equivalent
- ☐ Some college
- ☐ Associate's degree (AA, AS)
- ☐ Bachelor's degree (BA, BS, AB)
- ☐ Master's degree (MA, MS, M.Ed.)
- ☐ Professional degree (MD, DDS, DVM)
- ☐ Doctorate degree (Ph.D., Ed.D.)

10. What is your father's highest level of education?

- ☐ No schooling completed
- ☐ Less than 8<sup>th</sup> grade
- ☐ Some high school (No diploma)
- ☐ High school graduate or equivalent
- ☐ Some college
- ☐ Associate's degree (AA, AS)
- ☐ Bachelor's degree (BA, BS, AB)
- ☐ Master's degree (MA, MS, M.Ed.)
- ☐ Professional degree (MD, DDS, DVM)
- ☐ Doctorate degree (Ph.D., Ed.D.)

11. Your academic program and specialty area (e.g., M.A. in Family Therapy; Ph.D. in Counseling Psychology):

---

—

12. Current year of study in graduate school:

\_\_\_\_ 1<sup>st</sup>

\_\_\_\_ 2<sup>nd</sup>

\_\_\_\_ 3<sup>rd</sup>

\_\_\_\_ 4<sup>th</sup>

\_\_\_\_ 5<sup>th</sup> or beyond

13. Number of months you have conducted counseling or therapy with individual clients:

\_\_\_\_\_

14. Total number of hours of individual therapy that you have provided: \_\_\_\_\_

15. Average number of clients per month: \_\_\_\_\_

16. Total number of clients you have worked with to the present: \_\_\_\_\_

17. Training setting(s) that you have worked in (Check all that apply):

\_\_\_\_ College Counseling Center

\_\_\_\_ Community Mental Health Agency

\_\_\_\_ Private Hospital

\_\_\_\_ State Hospital

\_\_\_\_ Veterans Administration Hospital

\_\_\_\_ Other Setting

## Appendix B

### *Additional items for the Semantic Differential Aging Scale*

1. Which of the following most closely describes the living situation of the “typical” older adult that you imagined:

Hospitalized

Assisted Living

Living independently

2. For the older adult that you imagined, how able was this person to care for themselves by doing things like bathing, dressing themselves, walking, toileting, and feeding?

Quite unable to care self

Needs some assistance  
in self-care

Very able  
to care for self

3. How able was the older adult you imagined to complete activities like using the telephone, shopping by themselves, preparing their own food, taking care of their own home, doing laundry, driving, taking medications, and handling finances?

Not able to complete these

Needs some assistance

Able to complete alone



## Appendix C

### Modified CDP Scale

Used and modified with the author's permission

Please place a number to the left of each statement indicating your answer to each question. Use a number from 1 to 5 to indicate the following: 1 = never; 2 = once or twice; 3 = a few times; 4 = often; 5 = very often or respond with positive, neutral, or negative when prompted.

*The phrase “older adult” refers to those in the 65 and older age group.*

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## Appendix D

### Validity Items

- |    |                                       |   |   |   |   |
|----|---------------------------------------|---|---|---|---|
| 1. | Please respond with number 4 now:     | 1 | 2 | 3 | 4 |
| 2. | Please respond with the number 3 now: | 1 | 2 | 3 | 4 |
| 3. | Please respond with the number 1 now: | 1 | 2 | 3 | 4 |
| 4. | Please respond with the number 2 now: | 1 | 2 | 3 | 4 |

## Appendix E

Table E1. *Percentage of Sample Reporting Daily Living Activities (Bathing, Walking, Toileting, Feeding) of Imagined “Typical” Older Adult by Participant Ethnicity and Gender (n = 266)*

Participant Demographic		Perception of Imagined Older Adult’s Ability to Complete Daily Living Activities		
		Quite Unable to Care for Self	Needs Some Assistance	Very Able to Care for Self
Ethnicity				
	African American	15.79	84.21	0.00
	American Indian	0.00	0.00	100.00
	Asian American	0.00	50.00	50.00
	European American	3.62	40.72	55.66
	Hispanic	30.00	70.00	0.00
	Other	8.33	25.00	66.67
Gender				
	Male	7.14	35.71	57.14
	Female	2.94	38.24	58.82
	Transgender	0.00	0.00	0.00

Table E2. *Percentage of Sample Reporting Instrumental Activities of Daily Living (Telephone, Cooking, Driving, Shopping, Medications, Finances) of Imagined “Typical” Older Adult by Participant Ethnicity and Gender (n = 266)*

Participant Demograp	Perception of Imagined Older Adult’s Ability to Complete Instrumental Activities of Daily Living		
	Not Able to Complete Alone	Needs Some Assistance	Fully Able to Complete Themselves
Ethnicity			
African American	5.26	26.32	68.42
American Indian	0.00	0.00	100.00
Asian American	0.00	50.00	50.00
European America	0.45	58.63	40.90
Hispanic	20.00	30.00	50.00
Other	0.00	38.46	61.53
Gender			
Male	3.57	35.71	60.71
Female	1.26	55.88	42.86
Transgender	0.00	0.00	0.00

Table E3. *Percentage of Sample Reporting Living Situation of Imagined “Typical” Older Adult by Ethnicity and Gender (n = 266)*

Perception of Imagined Older Adult's			
		Living Situation	
Participant Demograph	Hospital	Assisted Living	Living Independently
Ethnicity			
African American	0.00	15.79	84.21
American Indian	0.00	0.00	100.00
Asian American	0.00	0.00	100.00
European American	1.36	19.91	78.28
Hispanic	0.00	40.00	60.00
Other	0.00	23.08	76.92
Gender			
Male	0.00	10.71	89.29
Female	1.27	20.59	78.15
Transgender	0.00	0.00	0.00

**MARYANN SUTTON**  
**CURRICULUM VITAE**

**EDUCATION**

Lehigh University

**Counseling Psychology Ph.D. Program**

**Fall 2007 – Present**

Dissertation: *Attitudes toward and interest in working with older adult clients.*  
Defended March, 2013.

Lehigh University

**M.Ed. in Counseling and Human Services**

**2009**

Clarion University of Pennsylvania

**B.A. in Psychology**

**2007**

Minor: Spanish

*Summa Cum Laude*

**CLINICAL EXPERIENCE**

Holcomb Behavioral Health Systems

**Pre-doctoral Resident**

**September 2012 –**

**Present**

Predoctoral internship program including year-long outpatient work, didactic training, supervision and case conferences and completion of three, four-month long rotations in crisis services, forensic evaluation, and adolescent services.

Holcomb Behavioral Health Systems

**Outpatient Therapist/Mobile Therapist**

**September 2009 –**

**August 2012**

Provided on-going outpatient therapy in individual and family formats to a diverse group of children and adults residing in the community in office and home settings under the supervision of a Licensed Professional Counselor; Completed clinical documentation including diagnostic evaluation assessments and on-going individual progress notes; Attended staff meetings and group supervision.

Acute Partial Program

Lenape Valley Foundation

**Psychology Practicum**

**August 2010 –**

**February 2011**

Provided individual and group therapy to a diverse group of adults residing in the community in the Acute Partial Program; Developed unique group topics for psychoeducational groups; Completed all clinical documentation including biopsychosocial assessments, group and individual progress notes; Attended daily case conferences; Received supervision in group and individual formats with Philip Braun, Ph.D.

Lehigh University

**Clinical Supervisor**

**September 2009 –**

**May 2010**

Provided individual and group supervision sessions to domestic and international students who were in direct service to clients in a variety of settings (school, hospital, and community); Reviewed audio recordings of individual client sessions; Met with supervisees on a weekly basis to review case loads and client related concerns; Completed evaluations of supervisees and documentation of supervision sessions; Attended supervision of supervision meetings with Nick Ladany, Ph.D. and Cirleen DeBlaere, Ph.D.



Counseling and Psychological Services  
University of Pennsylvania

**Psychology Practicum**

**September 2009 –**

**May 2010**

Provided individual psychotherapy to undergraduate and graduate students with a wide range of presenting concerns in a competitive university setting; Completed intake evaluations, scored intake assessments, and completed on-going progress notes; Administered and interpreted career assessments and provided feedback to students; Attended weekly seminars and case conferences; Received individual supervision with Gabriel Mauren, Ph.D. and Cristina Cruza-Guet, Ph.D.; Attended group supervision led by Marilia Marien, Ph.D..

Moravian College Counseling Center

**Psychology Practicum**

**September 2008 –**

**May 2009**

Provided individual psychotherapy to undergraduate students in a private liberal arts college setting; Completed intake assessments and on-going progress notes; Interacted with multiple campus services; Provided community outreach presentations; Attended weekly supervision with Ronald Kline, Ph.D. and weekly staff case conferences.

**TEACHING EXPERIENCE**

Northampton Community College

**Adjunct Faculty**

**Fall 2010 – Present**

Taught multiple sections of undergraduate Introduction to Psychology courses on campus and online in a diverse community college setting; Provided grading and feedback to students in a timely manner; Held weekly office hours and conferences with students; Received student course evaluations and faculty observations with Assistant Dean of Humanities and Social Sciences.

Lehigh University

**Teaching Assistant**

**Summer 2010**

Assisted Arnold Spokane, Ph.D. in teaching graduate level Family Counseling course; Graded student assignments; Developed and presented course lectures in Feminist Family Therapy and Family Systems Approaches.

Lehigh University

**Teaching Assistant**

**Summer 2008**

Assisted Grace Caskie, Ph.D. in teaching Introduction to Statistics course; Graded student assignments and provided feedback; Developed and presented lecture on Correlation.

**OTHER WORK EXPERIENCE**

Holcomb Behavioral Health Systems

**Therapeutic Support Staff**

**May 2008 –**

**September 2009**

Provided part-time individual behavioral support to a diverse group of children and families in the community and home settings; Implemented interventions according to treatment plan; Provided appropriate documentation; Attended weekly supervision meetings.

Lehigh University

**Graduate Assistant - Grace Caskie, Ph.D.**

**September 2007 –**

**May 2009**

Assisted Dr. Caskie with multiple research projects, conference presentations and publications; Completed general office work; Assisted with tasks related to class preparation.

**AWARDS & OTHER EXPERIENCES**

Student Affiliates of APA Division 17

<b>Program Co-representative</b> <b>May 2012</b>	<b>September 2011 –</b>
Northampton Community College <b>Online Teaching Certification</b>	<b>April 2011</b>
Forum Research Grant – Lehigh University <b>Research Award</b>	<b>October 2010</b>
Alpha Mu Gamma Spanish Honors Society <b>Secretary</b> <b>May 2007</b>	<b>September 2005 –</b>
Phi Eta Sigma National Honors Society <b>Senior Advisor</b> <b>May 2007</b>	<b>September 2006 –</b>
Psi Chi Psychology Honors Society <b>Secretary</b> <b>May 2007</b>	<b>September 2006 –</b>

## RESEARCH

Caskie, G., Sutton, M., & Eckhardt, A. (In press). Accuracy of self-reported college GPA: Differences by achievement level and academic self-efficacy. *Journal of College Student Development*.

Sutton, M. & Caskie, G. (2011, August). *Counseling trainees' attitudes toward and desire to work with older adult clients*. Poster presented at the American Psychological Association Conference, Washington, D.C.

Sutton, M., Caskie, G., Gunnet-Shoval, K. (2010, November). *Stability in self-ratings of health: Differences in health outcomes for older Mexican Americans*. Paper presented at the 2010 Gerontological Society of America Conference, New Orleans, LA.

Caskie, G., Sutton, M., & Margrett, J. (2010). The relation of hypertension to changes in daily functioning in older Mexican American adults. *Journal of Gerontology: Psychological Sciences*, 65B(3), 296-305. doi: 10.1093/geronb/gbq001

Sutton, M. & Caskie, G. (2009, November). *The reciprocal relationship between pain and depression in Mexican-American older adults with arthritis*. Paper presented at the 2009 Gerontological Society of America Conference, Atlanta, GA.

Caskie, G., Sutton, M., & Margrett, J. (2009, March). *Longitudinal change in depressive symptoms for arthritic and non-arthritic Mexican American older adults*. Paper presented at the 2009 Eastern Psychological Association Conference, Pittsburg, PA.

Caskie, G., Sutton, M., & Margrett, J. (2008, November). *The relation of hypertension to changes in daily functioning in older Mexican American adults*. Paper presented at the 2008 Gerontological Society of America Conference, National Harbor, MD.

Caskie, G., Carr, A., & Sutton, M. (2008, August). *Social problem-solving and self-efficacy as predictors of adjustment to college*. Poster presented at the 2008 American Psychological Association Conference, Boston, MA.

Caskie, G., Carr, A., & Sutton, M. (2008, March). *The accuracy of self reported college GPA: Differences by achievement level and academic self-efficacy*. Paper presented at the 2008 Eastern Psychological Association Conference, Boston, MA.

## OTHER PUBLICATIONS

Sutton, M. (2008). New technologies gain popularity with older adults. *Adult Development and Aging News: Division 20 Newsletter*, 36(2), 4.